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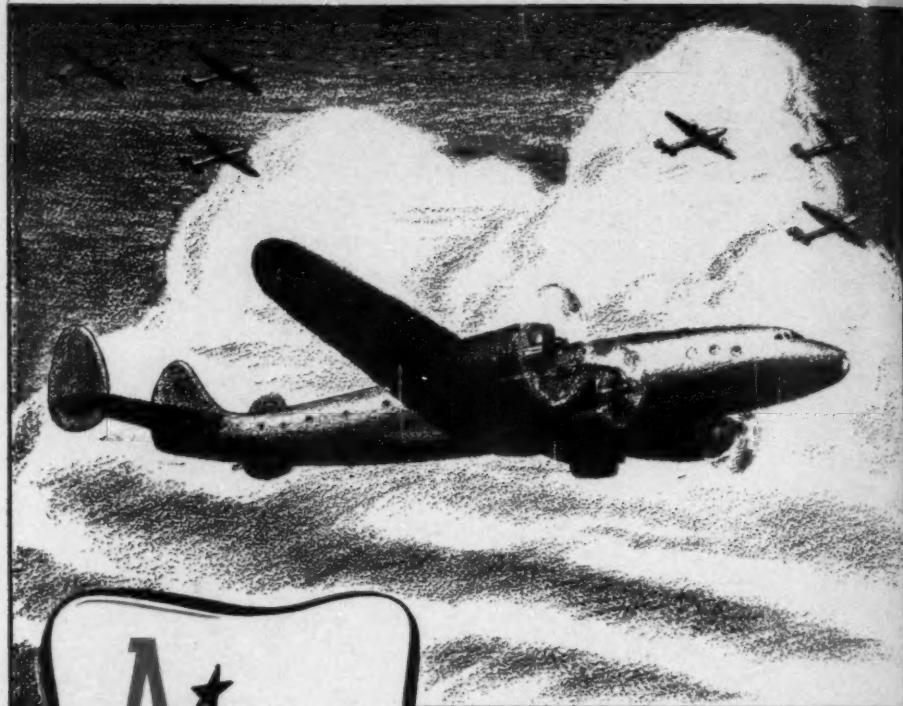
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**A Dash of Cold Sense for the Boomers of Air Future**

By CHARLES E. BEARD, Vice President, Braniff Airways, Inc. .... 5

**An Air Pioneer Looks Anxiously at Tomorrow's Skies**

By CARLETON PUTNAM, President, Chicago and Southern Air Lines .... 12

**United Out in Open on Competition: Sides with Pan Am, AE**

Patterson Resolves Mystery, Urges One Company in Foreign Air .... 22

**Western Piled Up Impressive 'Firsts' in 17 Years**

Weather Reports, Landing Fields All Improvised in Early Days .... 26

**Air Cargo Personalities:**

CROIL HUNTER, President, Northwest Airlines, Inc. .... 32

**Impressions of a 20,000-Mile Tour to Speed Inter-American Growth**

By ERIC A. JOHNSTON, President, Chamber of Commerce of the U. S. .... 36

**It's An Air World**

By L. A. GOLDSMITH, Economic Analyst, AIR TRANSPORTATION .... 39

**Air-Portation News**

Program for Vast Air Fleet Launched by British . . . Pioneer in Short-Haul Routes Demands Lines for 'Forgotten Cities' . . . Wanted: Federal Corporation to Dispose of War Planes After the Peace .... 42

**DEPARTMENTS**

Air Cargo Personalities .....	32	Air Transportation Equipment .....	48
Air-Portation News .....	42-46, also 10, 20-21, 24, 34, 41	Congratulations from A.T. ....	46-47
Air Shipping: International Express & Mail Tables .....	49-53	Editorial .....	54
		It's An Air World .....	39-40
		Services for the Air Shipper .....	55

**AIR TRANSPORTATION'S COVER**

HENRY KAISER'S GIANT CARGO PLANE, as depicted by Mechanix Illustrated Magazine. Now being built by the Hughes Aircraft Co. of Culver City, Cal., it is two and a half times the size of the biggest airplane ever built. It is 218 feet long with a wing spread of 320 feet and weight of 200 tons. Shown in proportion to the B-17 Flying Fortress (top) and the P-47 Thunderbolt (right), the flying boat will carry 60 tons of cargo. Equipped with eight engines, it has a fuel capacity of 8000 gallons and a cruising speed of 174 miles. Three of these planes are now being constructed.

## Beechcrafts at work



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PAGE 4—AIR TRANSPORTATION—*Air Commerce*

# A Dash of Cold Sense For the Boomers of Our Future in the Air

*A Realistic Outlook on Plane  
Express, Synthetic Fuels and  
Federal Rules Are Vital Needs*

BY CHARLES E. BEARD

*Vice President, Braniff Airways, Inc.*

**F**LYING has stirred the imagination of men from time immemorial. It so stirred the imagination of the ancient Greeks that they created in their mythology the legend of Icarus, who, they tell us, created wings out of wax and feathers and flew so close to the sun that the wax melted, dropping that gentleman into the Aegean Sea.

In medieval days, da Vinci created hand-propelled gliders and the parachute. Flights were successfully made in balloons before our Revolutionary War.

There is really nothing so new about the visions of an aerial future which stir the minds of men today. And, interestingly enough, the two most forceful concepts of the use of air transportation are not new either. Six years before the adoption of our Constitution, the first air-mail letter, addressed to Benjamin Franklin, was carried across the English Channel in a balloon and, incidentally, one of the occupants of that balloon was an American.

The advantage of air navigation in military operation was the second of the early conceptions of man's use of the air.

A year after he received that first airborne letter, Benjamin Franklin wrote: "Five thousand balloons, capable of raising two men each, could not cost more than five ships of the line; and where is the prince who can afford to so cover his country with troops for its defense as that ten thousand men descending from the clouds might not in many places do an infinite deal of mischief before a force

could be brought together to repel them?" There was one of the earliest conceptions of air-borne troops.

In the same year, George Washington commented in a letter to a friend that the tales of balloon ascension in Paris "lead us to expect that our friends at Paris, in a little time, will come flying through the air, instead of ploughing the ocean to get to America."

In the intervening years, we have seen the successful development of transoceanic passenger travel; of national and international, in fact world-wide, air mail service; and the creation of irresistible military air forces. And much of that development we have witnessed during the last thirty years. It is no wonder, therefore, that we are inspired to predict unlimited and even fantastic future accomplishments by air. In view of what has been accomplished in the past decade, it is not surprising that we are all prone to conceive of the economy of the future as being almost completely dependent upon and built around the airplane.

In building for this great future air development, however, it is essential that we



**Charles E. Beard**

not be swayed too greatly by rampant imaginations. I do not doubt but that practically all of the things predicted for the future in air transportation will one day be accomplished, but that day probably is not tomorrow and, as inevitable as it may be, that day will never come without adequate preparation.

It is difficult to make any predictions, even though they be only reasonably accurate, concerning the future of aviation. The greatest difficulty lies in the fact that we have almost no conception of the machinery with which those great air feats will be accomplished. The airplane does not today exist which can accomplish the things which have been predicted for it. I say that advisedly, because a study of the facts seems to indicate that it cannot be accomplished by the airplane as we know it today.

To explain what I mean, we are going to have to analyze some of the predictions which are being made in the light of existing facts.

My comments are all going to be based upon the year 1941 because that was the

last pre-war year and probably we are reasonably safe in assuming that it was a normal year.

In the year 1941, the airlines of the United States had some 350 airplanes. With those 350 airplanes, the airlines of the nation carried a volume of passengers equal to approximately 15 per cent of the total number of pullman passengers.

It is apparent, therefore, that some 2,333 planes of the size used in 1941 would carry a volume of passengers equal to the total number carried in pullman cars of the nation that year.

The exact current rate of aircraft production we do not know. We do know, however, that planes are being produced at a rate of about 48,000 a year. That production includes all types—transport, bombing, fighting, reconnaissance and training planes. It may not be too far off, therefore, if we estimate that if all the production capacity of the United States were devoted to twenty-one-passenger transports, we could build perhaps 25,000 such planes a year. By various means of computation, we see that a fleet of some-

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"In building for a great future air development, it is essential that we not be swayed too greatly by rampant imaginations."

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where between 3,000 and 6,000 of these planes would have a capacity equal to the total train inter-city traffic of 1941. On that basis, therefore, there is a transportation market for approximately three months' production. This, of course, encompasses only domestic passenger transportation. If we assume that there is an equal volume of international traffic, then the passenger traffic field would require approximately six months of our production capacity.

That is not a particularly encouraging picture. When we look at the possibilities of air freight, however, the picture becomes somewhat more encouraging statistically.

In 1941, the railroads of the nation operated domestically 481,766,000,000 ton-miles of freight. This figure includes all of the steam and electric railroads in the United States.

Using 100 per cent of its capacity, a DC-3 on a 300-mile, station-to-station operation has a capacity for approximately two and one-quarter tons of cargo. Again using the basis of twelve hours of operation per day, which would be approximately 1,800 miles, we find that that DC-3 airplane would operate 4,050 ton-miles per day, or 1,478,250 ton-miles per year. Applying this number of ton-miles per year per airplane against the total freight traffic of roughly 482,000,000,000 ton-miles performed by the steam and electric railroads, we find that there would be required 325,900 planes to carry a volume of freight traffic equal to the 1941 volume experienced by the railroads. This would seem to be a most encouraging fact. It seems to predict capacity operation of all our aircraft plants for the next sixteen years, even if we do not take into consideration replacements.

Of course, as you increase the size of the airplane, you decrease the number of aircraft necessary. If the airplane were twice as large, it would take only half as

many, and so on. Now let's take a look at some cost figures.

In the month of October, 1941, which I believe to be a fairly typical and representative month, the average operating cost of all the scheduled air carriers in the United States was 61 cents per mile. Applying against this average cost figure, the two and one-quarter-ton capacity, and 100 per cent load factor of the DC-3 which I have already mentioned, we arrive at a ton-mile cost of 27 cents. We all know that it would be impossible to operate at 100 per cent capacity, so that the cost to the public for air freight, based upon 1941 experience, would have to be somewhat higher than the 27 cents per ton-mile figure. In our own operation, based upon freight carriage alone and without charging against the operation all of our administrative expense and without charging any of our sales and promotional expense, and, again on the basis of a 100 per cent load factor, we have actually experienced a ton-mile cost of a little more than 15 cents.

Putting these two figures together, I believe that it is reasonable to assume that somewhere between the two lies the cost of air freight in normal times. We can assume that the cost per ton-mile will decrease as the size of the plane increases. We cannot now figure the exact rate of this decrease. Let us assume, though, that the lower ton-mile rate of 15 cents which I have just mentioned can be attained in the equipment now being manufactured and which will be immediately available after the war.

That figure is still unsatisfactorily high compared with the rail freight costs of something less than a cent per ton-mile, and, in the case of the vast bulk freight, something less than a half cent per ton-mile.

The advantages of speed are obviously worth having, but much cargo which today moved by ground freight is not adaptable to air transport. Let us continue on the assumption, though, that at 15 cents per

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"We are not at present legally conditioned to take care of the vast expansion which has been predicted for air transportation. We must have an over-all Federal law, providing uniform regulations."

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"I have no doubt but that all of brilliant things predicted for the air future will be accomplished, but I also believe they will be accomplished in a future which is somewhat more remote than Armistice Day."

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ton-mile we carry 25 per cent of the total rail freight volume of 1941 by plane. We have already seen that it would take some 326,000 planes of the DC-3 type to carry the total volume; it would therefore take 81,500 planes to carry one-quarter of the volume. The DC-3 airplane burns approximately 90 gallons of gasoline per hour. On the basis of twelve operating hours per day, each airplane will consume 1,080 gallons of gasoline per day. The fleet of 81,500 planes would therefore consume some 88,000,000 gallons of gasoline per day. We are not today operating on our total military and civil aviation, including our global operations, 80,000 airplanes. And yet I have seen within the past four weeks estimates indicating that we are so

rapidly exhausting our petroleum resources that, based upon current consumption, the end of available supplies is in sight. And bear in mind that our rough computations made here do not take into consideration any airplanes for military or for private use, after the war.

Now to review briefly, we find that the operating cost of available and projected equipment is far too great to enable us economically to sell air freight, and we find that the depletion of petroleum reserves by present aircraft engines burning present types of fuel is apparently so great as to make the operation of any substantial fleet a relatively brief one.

It is for these reasons that I say we do not yet have the airplane which will enable us to carry out the predictions we have all read and heard so much about.

I am not selling aviation short. I am confident that the airplane, the engine and the fuel to do the job will be developed. My point is merely that it is going to take a somewhat longer time than has generally been predicted.

I think it should be pointed out that existing aircraft now in the hands of the military, which are so frequently spoken of as being available after the war for conversion into peace-time operation, with a few exceptions are not adaptable to economic peace-time operation. They are designed primarily for specific purposes and they do not lend themselves to other uses economically. And, it must also be borne in mind that if they were capable of conversion and economical use in peace-time operation and they were so converted and used, our aircraft factories would have to close completely. We have already had this experience in the past. At the time of the Armistice in the last war, we were producing aircraft at a rate of somewhere around 23,000 a year. With the Armistice, the market was flooded with old war planes and our manufacturing capacity dwindled to nothing, almost. The used military aircraft simply preempted the market.

So far the picture I have painted is not a very bright one. Actually the picture is

### The Writer

*During the first World War Charles E. Beard was assigned to the naval aviation service as a gunner and learned to fly at the tender age of 17. Ability as a marksman, which he can still deftly display with rifle or revolver, earned him the rank of chief gunner's mate, the youngest in the Navy.*

*He was educated at Lake Forest Academy, Lake Forest College and Toledo University. After newspaper and theatrical experience, Beard entered the merchandising field in the farm implement and heavy hardware industry. Early in 1929, with air transport just getting on its feet, the lure of aviation he had experienced during the war returned and he went to Chicago to become the first secretary of the Air Traffic Association and manager of the world's first consolidated air ticket office, handling sales and publicity for its member lines.*

*Beard resigned from the association in 1933 to become passenger traffic manager of Northwest Airways. In October, 1935, he became general traffic manager of Braniff Airways. April, 1937, in testimony of his accomplishments, he was promoted to a vice-presidency of the airline in charge of traffic and advertising and made a member of the board of directors.*

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"I have seen within the past four weeks estimates indicating that we are so rapidly exhausting our petroleum resources that, based upon current consumption, the end of available supplies is in sight."

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not quite as black as I may have appeared to paint it.

Reverting again to a ton-mile cost of somewhere between 15 and 20 cents, we find that by looking into another field of cargo operations, the express field, there is a very substantial market available. In 1941, the Railway Express Agency handled a volume of 172,615,839 shipments. Of this total, only 1,306,629, or .76 of one per cent, were handled in air express. The vast bulk of express shipments is of such a nature that they lend themselves to carriage by air—and the present express rail rates are in the general vicinity of 15 cents a ton-mile. Here, then, is a most substantial field.

When the airlines of the nation made their contract with the Railway Express Agency, they did so because it was the second largest pickup and delivery organization in the United States. The largest is, of course, the United States Post Office Department. It is my opinion that the time has come for the full utilization of those pickup and delivery facilities by the creation of a system of air parcel post. Such a system can be quickly created, and it will reach the farthest corners of the most remote, rural areas, and it represents the quickest and most feasible way of extending the benefits of air transportation to every farm and rural community throughout the width and breadth of the land.

I indicated earlier that some time would have to elapse before there would be a full and complete development of airplane usage as envisioned by many of our public speakers and our writers. I think that this is probably, in the final analysis, a very good thing. It will give us an opportunity to prepare and plan wisely for that development. During this period of preparation, our manufacturers will have the opportunity to apply many of the technical, scientific and chemical improvements of the past two years to the products of

peace. In so doing, there will be created a tremendous number of new products which will replace old products, and these new products will be far more capable of being carried economically by air.

In that time, we can also expand our communications facilities by the adoption of an airmail postcard. Limited research indicates that this would result in a 30 to 40 per cent increase in the use of air mail.

We can also make good use of the time which will be available to us in developing and improving the mail handling facilities, which will enable the Post Office Department to expand its use of air facilities by the gradual conversion of first-class mail to carriage by air. I do not see any possibility, however, of all first-class mail moving by air inasmuch as to do so would develop advantages more apparent than real. A tremendous volume of mail in the United States moves over distances which are only twenty to fifty miles. To carry this mail by airplane would frequently gain nothing.

And we are not at present legally conditioned to take care of the vast expansion which has been predicted for air transportation. We must have an over-all Federal law, providing uniform regulations of both an operating and economic nature and providing for uniform liability. If a hodge-podge of State and local legislation similar to that which afflicts the motor bus and truck operators is permitted to come into existence, we will never have the brilliant aviation future which is envisioned.

There is still another step which can be developed also in the transition period. There can and should be developed what is commonly referred to as "feeder lines." After a good deal of study and research, we have come to the conclusion that this feeder-line system must be developed on a trade area basis, with operations based in each of the important trade centers and covering, from that trade center, the trade area normally served by it. This type of

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"The vast bulk of express shipments is of such a nature that they lend themselves to carriage by air. Here, then, is a most substantial field."

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operation will be able to take advantage of the three sources of revenue: air mail, air express and air passengers; and appears to us to be the most likely of success of any of the feeder type of operations which have yet been proposed.

In closing, let me say a few words about the helicopter, which seems to have made a more graphic impression upon our national imagination than anything which has occurred in the last quarter of a century. This machine holds forth great possibilities. It can rise and descend vertically, with no ground run at all; it can be flown backwards and sideways; it can be successfully flown in winds as high as forty-five miles an hour. It holds forth a brilliant promise of great things in the future, but it is still entirely an experimental machine. In its present form, the helicopter has a lifting capacity of from ten to fourteen pounds per horsepower. What its eventual lifting capacity will be, however, is not known. Apparently an aerial taxi capable of carrying four persons would require an engine of some 250

to 300 horsepower. It is not actually known whether this will be so or not, because those which have been built to date have a lifting capacity, according to the only information which is available to us, which is only slightly in excess of the weight of the necessary fuel and pilot and the machine itself.

I hope I have not left you with the impression that only a dark and dismal air age lies ahead. I have merely tried to convey to you the realistic viewpoint of experienced airline operators with respect to the future developments. As I said earlier, I have no doubt but that all of the brilliant things predicted for the future will be accomplished, but I also believe they will be accomplished in a future which is somewhat more remote than Armistice Day.

*The foregoing significant article is made up of excerpts of a speech delivered by Mr. Beard before the Southwestern Institute for Chamber of Commerce executives held at Dallas, Texas.*

## Stormy Transatlantic Glider Flight Opens a New Era in Cargoes by Air

LONDON.

THE first Atlantic train crossing by tow-plane and glider, achieved by the Royal Air Force on July 3, has opened up a new era of transportation which cannot but have very great repercussions on the future of cargo transportation particularly.

The 3,500-mile trip was done in twenty-eight hours flying time in conditions which tested the ability of the pilots and crews of both machines. On the way the train encountered three belts of thunderstorms, ice and snow, the towing heights ranging from only 1,500 feet to as high as 9,000 feet.

The record now set up will doubtless be beaten as more and more experienced crews take this new Transport Command job in hand, but even the present fine work demonstrates very clearly the immense possibilities of this method of transportation.

The comments of pilots of the tug and the glider, interviewed in London after their safe arrival in Britain, indicate that the crossing was not without its strain.

Squadron Leader R. G. Seys, D.F.C. of the RAF, pilot of the glider, spoke especially on the necessity for continuous watchfulness of the glider pilot and copilot. The strain was intense the whole way, he said. The glider

must be held true to the tow, since any increase or decrease in altitude must inevitably destroy the trueness of navigation and flight of the tow plane; to climb would deflect the towplane's tail and to lose altitude would have the reverse effect. Throughout the entire flight the glider pilots had to concentrate on retaining the correct course.

That he was definitely glad to see England ahead was the frank admission of this tried RAF flier who, along with his copilot Squadron Leader F. M. Gobeil, RCAF, showed exceptional endurance.

The fact that the glider carried a load of one and a half tons, in this case of drugs, and that the flight was successful in some of the worst Atlantic weather, mark very clearly the future of this mode of transportation.

The main intention now, it is believed, will be to speed up the technical details of equipment and construction. One improvement made just before the actual crossing, was the use of solid petrol tanks so that the petrol could be jettisoned intact were there any reason for doing so. To jettison loose petrol would be to spray the glider with the consequent danger of fire from electrical atmospheric conditions.



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# An Air Pioneer Looks Anxiously at Tomorrow's Skies

## Carleton Putnam Warns That a Single Vast Transport System Will Snuff Out American Pioneering Spirit

By CARLETON PUTNAM  
*President, Chicago and Southern Air Lines*

TEN years ago, early in the summer, I stood beside a five-passenger Bellanca airplane at the airport at Los Angeles with the Mayor and the usual wreaths of flowers. We had just complete the first run of our new air line along with the coast from San Francisco to Los Angeles, a line we'd started with two single-motored planes and a spare engine, less than \$25,000 capital, no mail contract, and a route that nobody else wanted. In fact all we had, in the words of a song that was popular in those days, were "good dispositions and a wild desire to succeed." Looking back on it now the whole thing seems just a little foolish, a little too fanciful to dwell upon without an indulgent smile.

And yet remembering that sunset back in 1933, I'm touched by a certain nostalgia and, as spokesman for the company, by a deep sense of gratitude to the men and women whose efforts through the years have made possible the Chicago and Southern of today. Some of them have gone to other air lines in the course of time, some of them have taken a longer journey than any of us here have taken yet, but many have grown with us over a large part of the decade, and to all of them tonight I drink a silent toast.

I say "silent" because it is so hard to put into words all that that fellowship has meant. Of course it has meant the obvious things—the sharing of a very real adventure, the things we in our business don't talk about much because it sounds a little sentimental, the ship coming in through the storm, the plane taking off toward the evening star—all these things fashion a bond between air-line men. And for Chicago and Southern in particular there

has been the Horatio Alger story, the climb from the pathetic shoe-string to the established corporation of today, taken in dramatic steps and by narrow escapes that in places would make most novels seem tame. Somehow, looking back, it has been genuine drama, rich in suspense, satisfying in its rewards, and altogether compact with the elements that we Americans, for a century and a half, have learned to value and to love as a part of the adventure of living.

I wouldn't dwell so long on what may seem rather personal and family matters, were it not that I want to make two points tonight. One of them has to do with the past, one with the future. And the one from the past is this: There have been granted to us of Chicago and Southern the literal opportunities and the literal fulfillment that we were taught to believe were a part of our American inheritance. It is one thing to learn about such values in school, it is another to live through them

in experience. And having done so, it is natural to want to pay tribute to the system and the traditions that make them possible. I know that sometimes the system does not work too well, that many in bitterness have found that injustice can be done, or that the reward can fall far short of the effort and devotion. But where circumstance and good fortune have joined to approximate the ideal, it is good to pause on an occasion such as this and to acknowledge certain debts.

I doubt if there are many countries in the world today, even among the democracies, where a small group of men, limited in financial resources, could have found an equivalent opportunity in so wide a field or have been able to realize its satisfactions to the same extent. I do not mean that any of us have become rich out of our efforts, but we have had the one supreme satisfaction of building something together, of seeing it grow under our hands, of sharing, from the executives on through our whole organization, a close fellowship in the building, and of knowing that we have had the chance to do this without favoritism from any quarter—except, perhaps, the one great favor of having been born under the flag we were.

### A Balanced Compromise

The subject of free enterprise, I know, is a large and complex one—complex, that is, in the problems it raises in attaining the ideal in any universal sense. But we do well, in the midst of those complexities, to revert now and then to the principle itself, and to remind ourselves how simple and basic it remains. It has often occurred to me that if we could give every man three things, his own home, his own wife, and his own shop, most of our troubles in this world would be over. No amount of theorizing about communal property, or the "leadership principle," or the world revolution, can alter the essentially *personal* basis of human life and society. Diffuse as widely as possible the *personal* satisfactions, and you have a healthy body politic. The problem, of course, is to accomplish this without forfeiting the many benefits of high industrialization. Perfection would probably be achieved if we could attain the personal satisfactions of a pastoral society, with the comforts, conveniences and wider integra-

tions of Manhattan Island. But since the millennium is not yet with us, we must work toward the most balanced compromise possible.

And in working toward it, let us not forget that it is easier to be beguiled by the magnificent pattern and the grand conception in business or government, than by these simpler, more basic, more personal ingredients of a healthy society. I know too well, from my own experience, the impersonal flavor of what I might call the "Manhattan Island" point of view in business. I know its deadening effect on the pioneer spirit and the sense of adventure in young men. It is perhaps symbolic that we of Chicago and Southern should have had to go west to get our start, west to the heartland of the pioneer. That was the best place we could find to set up a shop of our own, where we could build something for ourselves. And may I say to those of you who are in the government service in whatever capacity: gentlemen, there is no greater satisfaction than running your own shop, no matter how small it is, but next to that is the satisfaction of cooperating with a few close friends in running it, and the third best thing, when you choose a career, is to be able to look around you and to find enough independent, separate organizations in your field to give you a reasonable assurance that some day, in one of them, you can get "on the bridge" as they say at sea. And, gentlemen, the worst thing is to look around you and to see no chance, ever, of being more than a name on a long list.

Shortly before his death Lord Tweedsmuir, who was then Governor General of Canada, looking back on the turbulent years of his public life—years that included not only the first World War, but the whole germinal period of the present catastrophe—wrote these words:

"In my lifetime I seem to note a change which is a graver thing than our other discontents, which, indeed, is in a large measure the cause of them. The outlook of youth has been narrowed, doors have been sealed, channels have silted up, there is less choice of routes at the cross-roads. . . . A young man seems to me to have fewer avenues open to him, and fewer chances in these avenues. I leave out of account the preeminence of mind or character which

we call genius, for that will always hew out a course. I am speaking of youth of reasonable capacity and moderate ambitions, which seeks a calling with hope and daylight in it, which is capable of a great effort of patience but must have a glimpse of some attainable goal. . . . I have had much to do with young men on several continents and in many countries and I regard this shrinking of opportunity as one of the gravest facts of our age. It will remain an urgent matter long after the guns are silent. Somehow or other we must make our social and economic world more fluid. We must widen the approaches so that honest ambition and honorable discontent may have elbow room. The world must remain an oyster for youth to open. If not, youth will cease to be young, and that will be the end of everything."

### **Touchstone of Success**

It would seem to me that the greatest contribution this nation can make to the world as a democracy at the end of the war is to do all it can to preserve those aspects of the pioneer way of life that have given value and meaning to the individual, the things that have made of living in America a personal adventure, and of the world "an oyster for youth to open." This, I think, is the real touchstone of our success on this continent. Free land, free hope, plenty of chances—either to be your own boss or to find a boss you like, with plenty to choose from before you decide—that is what the American flag meant to our grandfathers, what it still means to some of us. Whether it will mean the same to our children is another matter. That is the issue in large measure that day by day you here determine. This relatively small company, Chicago and Southern, is the product of decisions you made last year and the year before, and eight years before that. In our time of development you sheltered and nourished us, and tonight we remember.

And perhaps we may be forgiven for asking, will it still be the same ten years from tonight—for others as well as for ourselves? If there cannot be the identical chance to open a shop, will there be an

equal chance to carry on, an equal range of opportunity to get above the first rungs of the ladder? Will it be a question, for the young fellow wanting to get a start in aviation, of being a cog in one or two great machines, or will he be able to say "I like the style of that outfit down in Alabama. I'll get ahead with them. There'll be room at the top down there some day for me." Mark you, there's the difference between health and sickness in an industry, and what's more important, in a society.

It bewilders me at times to think how completely we take all this for granted, and yet how easily we forget it in our discussions of public questions. Not so long ago on the American Forum of the Air I overheard this dialogue take place between Claire Luce and Admiral Land. Admiral Land asked the question: "Why shouldn't shipping lines and rails and air combine rather than be separated?" And Mrs. Luce replied: "Because then they would cease to be competitive." To which Admiral Land made what seems to me the staggering rejoinder "Not at all. We have plenty of competition from the foreign people of the world. I can prove that by maritime use. We have one flag and there are twenty-six against us."

### **Virtues of Competition**

It staggers me because I never thought the word "competition," to an American, meant only the existence of more than one organization in a field. I never supposed the virtues of competition were exemplified simply by the existence of a troupe of Goliaths in the arena, and no David anywhere in sight. I never thought anyone would say that one giant transportation company in America would bring us all the benefits of competition simply because twenty-six other foreign lines would force it to keep its rates down and its service up. Are rates and service the *only* things that competition and freedom from monopoly mean to Americans? I promise you they are not. Those words mean also a chance for David. They mean the existence of diversified opportunity for the fellow *inside* business, as well as the public *outside* business. They mean a fair margin of chance to get "on the bridge" somewhere, sometime for the man of rea-



## How will overseas CLIPPER Cargo fit your post-war plans?

- War needs have full right-of-way aboard Pan American's present transoceanic Clippers.

But return to regular, commercial service of those ships, *plus* construction of new, all-cargo Clippers, may come before Peace.

The routes, the air terminals and the operating "know-how" *already* exist—pioneered by Pan American over a period of 15 years. During that period, Pan American World Airways System has piled up a total

of more than 215,000,000 miles of over-ocean flight . . . and also originated both overseas Air Express and overseas Air Freight.

When new Cargo Clippers are delivered, commercial shippers will wisely turn to Pan American for reliable, high-speed, over-ocean transport.

In 1942 the Clippers carried *thousands of tons* of war cargo . . . Tomorrow it will be the turn for commercial exporters and importers.



**BACK THE ATTACK—  
WITH WAR BONDS!**

*The Trade Routes of the future will be  
Sky Routes flown by Clipper*

**PAN AMERICAN WORLD AIRWAYS**

sonable ambition and reasonable ability—not just one or two chances for one or two great leaders or geniuses. Give the country that kind of competition and the public will be well served both at the bargain counter and in the adventure of life. It goes beyond economics. It goes to the heart of the human and personal inducements that lend zest and stimulation to youth everywhere.

### **An Ideal Must Be Kept**

Now I am thoroughly conscious of the compromises that have to be made in any organized society in achieving most of its results. Always it seems to be a question of finding the balance, the happy medium. The chaos of too many independent business units can be as disheartening as the deadening hand of too few. This is particularly the case in the so-called "public utility" field, and air transport is certainly a public utility. Where does one draw the line, how does one find a formula for the happy medium here? I doubt if there is a formula. If there is one, it consists in a state of mind on the part of our lawmakers and administrative bodies, a state of mind that remembers that business is living and that living is more than just an economic principle, subject to more than economic tests and measurements—a state of mind that flavors every decision it makes with the salt of the person and human needs in our society. For example, if you were to tell me that the whole air transport system of the United States could be operated for half a cent less a mile as one great, single organization, I would say that half a cent was a cheap price to pay for the ferment of ideas, enthusiasm, hopes, and dreams you won't get if you have that single company.

And so on down the scale. You let in your railroads and your steamship companies, and you have not only the danger of old-line transportation attitudes dominating and subordinating, by their very size and financial power, the new medium that others have pioneered, but you narrow by so much the diversity of personal opportunity. You do so because you send David in among too many Goliaths. And pebbles are getting scarce.

Or you talk about one great transportation company in the international field, because you say we need a single, united front in competing with other nations for foreign trade. Other nations, you say, go

into new territory represented by a single air line, and it makes a bad impression if we follow along with two or three in competition with one another. It's harder for the State Department. It confuses the picture. Now undoubtedly in time of war, or where you have a very delicate political issue, that may be true. But in time of peace, as a principle for normal conditions, may we be delivered from such doctrine. And why? Just because, again, that beautiful symmetrical pattern, that awesome, single system (you can almost hear soft music playing as you look at it on a map on the wall in an office in the Grand Central Palace) that system that is so easy for the State Department to work with—that system will *not* buy a generation of hope in the eyes of American youth, it will *not* buy a ferment of diversified executive thinking and enterprise, it will *not* keep alive the ideal of the wide American chance.

I have said that the formula for finding the happy medium consists in a state of mind among those in authority in our government—first in framing the laws, then in executing them. How many times I have watched that state of mind falter a little, then grow stronger, then hold the line at some committee hearing in Congress or before an administrative board. Through all the growing pains of our industry for a decade I have watched it, sometimes with grave anxiety and suspense, but almost always, so far, to see its success and vindication. In the very early days I was one of those who opposed the creation of a separate Aviation Commission and favored leaving authority in the hands of the Interstate Commerce Commission, because I feared that a new, unseasoned body, without roots or traditions, might too easily be swayed by private pressure outside, or powerful minorities inside, the government. In those early days, when we were very young and uncertain ourselves, the Interstate Commerce Commission seemed more like the Rock of Ages "cleft for us," in which we could find shelter in a stormy time.

But as we grew more confident in our position and the thunder clouds of 1934 were dissipated, I became satisfied that under the Civil Aeronautics Act of 1938 a new Board of Authority might hold the line just as well. Moreover, the inevitable change from the contract system to the route award method of the Civil Aeronau-

tics Act really necessitated the detailed attention of a specialized Board. So we welcomed the 1938 Act and the Authority established by it. And in the five years of operation under it, our faith in its "state of mind" has had no cause to waver.

### **Matter of Hindsight**

It is the fashion now-a-days to fling in the teeth of the Board charges of backwardness in route development, and consequently equipment development, in quantity and quality, before the war. Hindsight is always so wise and, forgive me, so condescending. How many members of the House and Senate appropriations committees, how many on the staff of the Post Office Department, all of whom were powerfully involved in this matter, would have supported an unbridled route expansion program in 1939? Perhaps if you'd been on the Board, you wouldn't have made decisions either that would have been nullified by the Appropriations Committees of Congress. But these matters are beyond my scope tonight.

The thought that I want to leave with you as one who has watched a decade, the crucial decade, of air transport development in hindsight, too, but less one of criticism than of gratitude and hope. I believe I can speak for all the air lines, outside the so-called Big Four, and perhaps in many ways for them (some of them haven't had such a hard time as they might lead you to think) when I say that running through all these years, in Congress, in the Interstate Commerce Commission, and finally in the Civil Aeronautics Board, I have seen the thread, call it one of the threads of destiny if you like, the thread of the wide American chance, the thread that ran through Santa Fe and old Fort Bridger, through Apache Pass and Sutters Mill, I have seen that thread still weaving its pattern through the growth of air transportation. I have seen a dozen relatively small air lines struggle and grow. I have seen executive talent get its start, prove itself, in those small companies, and then go on to the larger lines. I have seen opportunity multiplied for leadership and experimentation. I have seen all this follow from wise laws wisely administered through ten crucial years. Without them we three would not be at this table tonight. We smaller people don't talk very often, and when we do

our voices are not very loud, but I say to you in all humility, we represent the greatest cause on earth tonight—the beneficiaries of free enterprise in practice, not just theory.

And now one solemn word on behalf of tomorrow. Gentlemen of the Government, this industry has a hold on the imaginations of young men. To them it is more than an industry—it is a faith, a rallying cry, a standard to which they can repair. I do not believe the open frontier of 1843 gave more of a lift to the spirits of youth than the air frontier of 1943. Eyes brighten when you speak of it, imaginations kindle. The perennial torch that Boone and Carson carried a hundred years ago is burning yet for them. That flame of personal adventure, that star of personal initiative, that hope of personal fulfillment that glowed in the heart of the covered-wagon teamster along the Rio Grande is feeding still on a vision in tomorrow's sky. Are you going to snuff out that light in the impersonal majesty of the efficient single system, are you going to plunge it into darkness to simplify the work of the State Department, does this government exist to provide the widest possible gamut of opportunity for its citizens, at home and abroad, or do we exist to simplify the government? I warn you that we are laying down this year, this month, this week, the highroad for uncounted generations. If we block off from their hungry eyes this vista that fate and circumstances have made the greatest and most symbolic vista in business life today, they'll shed few tears upon our graves tomorrow.

### **Air Brotherhood**

On a number of other occasions I have added my voice to the chorus of those forecasting the new brotherhood of nations which the airplane can help to fashion in the post-war world. In fact, Chicago and Southern was a pioneer in the use, somewhat sentimentally perhaps, of this theme in advertising. You see, to us in the air transport business there is something symbolic about the way the airplane has been the spearhead of destruction in this global war, and the fact that it can so obviously be the spearhead of construction, of integration, afterward. We have a machine here, a device, that is devastating, that has broadened and made more

terrible the whole technique of conflict. It is almost as if, in the great, eternal, final balance of things it was being put starkly up to us to use that same machine to redeem the destruction, to play the leading role, as far as a machine can do it, in healing, in building, when the war's over.

And we mean this literally. We have seen our own personal horizons broadened and mellowed by its influence. We know what sort of world-wide interfusion can result, in culture, in politics, in economics from the proper use of this amazing instrument. And we know how wide the earth is still, how full of virgin opportunity that can be touched awake and alive by the stimulation, the catalysis, of the air age. We know what a firing pin to initiative, what a lash to curiosity, what a spur to adventure there will be in the timetables of tomorrow.

### **Territories of Future**

No man who has read Wendell Willkie's book "One World" can miss the point. Willkie refers, for example, to the province of Sinkiang in western China as duplicating conditions that existed in our own West a hundred years ago. "These red hills are unbelievably lovely to look at from the air," he writes. "I could not see them without thinking what wealth they represent to a nation determined to open up its west. Irrigation projects, power plants, fertile fields and pastures, whole cities could be built in this region, and all the country lacked to build them, it seemed to me, was people." Again in speaking of the Middle East he says: "The Middle East is a vast, dry sponge, ready to soak up an infinite variety of goods and services." Writing of the Republic of Yakutsk in Siberia he quotes the Commissar there as saying, "When the war is over you in America are going to need wood and wood pulp. And we're going to need machines, all kinds of machines. We're not so far away from you, as soon as we get the Arctic Sea route open. Come and get it; we'll be glad to swap." Willkie says that Yakutsk is about a thousand miles from a railroad and he mentions some of its undeveloped resources: silver, nickel, copper, lead and oil, fish, salt and ivory. "These people," he concludes, "have developed an enthusiasm and a self-confidence which reminded me re-

peatedly of the romance of our own Western development."

I could continue for hours on this subject. South America alone would justify it. In the Argentine the total area under plow is probably not more than about 25 per cent of the land suitable for tillage. Her present population of thirteen million is only a small fraction of what her territory would sustain. An economist writes of another South American country, Brazil: "Less than 5 per cent of the total area is at present under cultivation, and improved transportation should open up great areas to westward expansion. . . . There has never been a systematic geological survey of the country, and both Brazil and the outside world may yet be pleasantly surprised by the discovery of new resources. In the state of Minas Geraes lies the greatest body of high-grade iron ore in the world, estimated at twelve billion tons."

In fact, this old earth of ours, far from having reached the saturation point, is only at the beginning of its productive development, agriculturally and industrially. The horizons for enterprise are unlimited. Consider for a moment just one aspect of opening up these rich and untapped resources of the earth. The United States has a population of 135,000,000 and it has 232,000 miles of railroad. China has 475,000,000 people and 6,400 miles of railroad. It has three and a half times as many people and less than one-thirtieth the railroad mileage. Russia has 166,000,000 people and 50,000 miles of railroad. More people than the United States and one-fifth the railroad mileage. All Asia has 1,155,000,000 people and 86,000 miles of railroad. Africa has 150,000,000 people and 45,000 miles of railroad. In fact, the United States and Europe together have only about 11 per cent of the total land area of the earth, yet these two regions have 60 per cent of all the railroad mileage on earth. You can see the immediate task that may very well face air transport in opening the gates to new continents. But for us in American air transport the greatest inspiration lies in the possibilities those countries offer in every field of industry and exchange, after the air age has made it easier for them to develop themselves.

And perhaps you can see why we in this industry sometimes feel as the Lord

must have felt when the devil took him to the mountain top and showed him all the kingdoms of the earth and said, "All these things will I give thee, and the glory of them, if thou wilt fall down and worship me"—except that we believe we hear the whisper of a higher voice than Satan's and when it speaks it says, "All these things will I give thee, and the glory of them, if thy faith be great enough, and thy purpose be one of good will." We believe, rashly perhaps, we aviation men, that we have a mission as well as a business. Because we're in a pioneer game, we have a pioneer's high heart. All of us want a chance at this stupendous opportunity, with whatever skills we have acquired, but above all in the way of Americans of old. Give us that chance, and perhaps the faith will be great enough,

the heart high enough and the purpose equal to the challenge.

Gentlemen, the spirit in which the seed is sown will mark the fruit this tree will bear. If you make your air lines political instruments—if you make them instruments of nationalistic and imperialistic policy, the fruit will wither on the branch. But let your air lines be expressions of the pioneer spirit of America, of the pioneer spirit everywhere, if you can—expressions of personal adventure—of free, individual energy and hope in the hearts of free and enterprising men, and what a difference you will find in the harvest!

*The foregoing address was delivered by Mr. Putnam at a dinner in Washington sponsored by the National Aeronautic Association on the tenth anniversary of Chicago and Southern Air Lines.*

## *The Flying Dutchman Again Blazes an Air Trail*



### **Provides Vital Passenger and Freight Link Between the Americas**

**Brings New York within 24 Hours of Curacao**

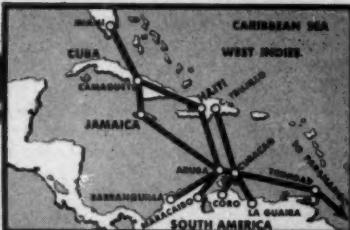


They're off! K. L. M.'s multi-engined airliners, fastest in the world, soar from Miami out over the Caribbean. They're opening a new route which makes a hop from New York to South America less than a sun-to-sun excursion!

Normally flying all five continents, K. L. M. pioneered the Amsterdam to London route back in '19 . . . founded the West Indies Section in '34, after making the first mid-Atlantic

crossing ever flown . . . maintains a peace-time network of European air routes, with such global through-routes as Amsterdam to Batavia—9,000 miles away.

K. L. M. offers vast experience in safe navigation and expeditious handling of passengers and freight. For reservations or information, apply to K. L. M. Royal Dutch Airlines, 521 5th Ave., N. Y.; Air Express Int., Miami; or any office or agent of the Holland-America Line.



Starting twice-weekly Miami-West Indies flights, with South American connections.

## **K. L. M. ROYAL DUTCH AIR LINES**

**World's Oldest Operating Transportation Airline**  
**Member International Air Traffic Assn.**



**With Brazil's Ambassador, Dr. Carlos Martins Pereira e Souza, looking on, Brazilian officials sign a contract whereby Fairchild Ranger aircraft engines will henceforth be manufactured in Brazil for use of the rapidly expanding Brazilian Air Force. Seated (left to right) are: Harold H. Budds, Fairchild vice president and Ranger general manager; Brazil's Ambassador Dr. Carlos Martins Pereira e Souza; and Major Miguel Lampert, chief Brazilian Aeronautical Commissioner to the United States. Standing (left to right) are: A. R. Stocker, Fairchild director of foreign relations; Colonel Armando Ararigboia, Air Attaché at the Brazilian Embassy; Dr. Fernando Lobo, Minister-Counselor of the Brazilian Embassy; and Colonel Vasco Alves Seco, chief of Joint Brazilian-United States Defense Commission.**

## American Aircraft Engines to Be Built By Brazil under New Agreement

American aircraft engines will be built in Brazil under terms of a contract signed by representatives of the Brazilian Government and representatives of the Ranger Engine Division of the Fairchild Engine and Airplane Corporation.

Under the agreement six-cylinder Ranger inverted in-line air-cooled engines, varying in power from 175 to 200 H. P., will be manufactured by Fabrica Nacional de Motores, the recently completed government engine manufacturing factory, one of the first and largest units in Brazil's noteworthy program of industrial expansion. These engines will be used to power the Fairchild M-62 (U. S. Army Air

Forces designation-PT-19) now built in Brazil under contract negotiated last year, the Brazilian Muniz M9 biplanes, and the two-engined Grumman Widgeons now in service in Brazilian coastal patrol and Amazon military patrol and mail delivery.

Harold H. Budds, vice president of Fairchild and general manager of Fairchild's engine division, represented the corporation at the signatory meeting in the Brazilian Embassy at Washington; Major Miguel Lampert, Chief of the Brazilian Aeronautical Commission to the United States and Assistant Air Attaché, signed for Brazil before a notable group of Brazilian officials headed by Dr.

# LETTERS

Carlos Martins Pereira e Souza, Ambassador to the United States. Present also were Colonel Armando Ararigboia, Air Attaché at the Brazilian Embassy, Colonel Vasco Alves Seco, chief of the joint Brazilian-United States Defense Commission and Alexis R. Stocker, Fairchild foreign director.

The completion of arrangements last year for the construction of Fairchild M-62 primary trainers at the Galeao Aircraft Factory situated on an island in the bay at Rio de Janeiro has resulted in the standardization of this type of plane for the primary training activities of the Brazilian Air Force. Hundreds of Fairchilds assembled there are flown from the United States to Rio in one of the largest mass flight deliveries of small aircraft between North and South America are now seeing service in Brazil's greatly expanded air force. These planes, powered by Ranger engines, are used for the elementary training of new Brazilian pilots, many of whom later will come to the United States for advanced training and specialized instruction under arrangements made through the Office of the Coordinator of Inter-American Affairs and the U. S. Army Air Forces.

Under terms of the new engine agreement, Fairchild will provide complete drawings and manufacturing data of engines, jigs, tools and fixtures. It will provide complete working drawings of assembly. It will throw open the facilities of the Ranger plants at Farmingdale and Jamaica, Long Island, for the instruction of engineers and mechanics designated by the Air Ministry. In addition, it will provide knocked down and semi-knocked down engines to enable Fabrica Nacional de Motores to break in skilled workmen in Brazil in the assembly and manufacture of parts for Ranger engines. Fairchild will also keep the Brazilian engine factory informed of all improvements in this engine.

The engines to be built in Brazil are now used in this and other countries to power training and combat aircraft for the air forces and the coast guard. In addition they are seeing extensive service in the activities of the U. S. Civil Air Patrol.

"Fairchild is again privileged to extend and solidify the splendid relationship which has always existed between these two great American republics," said J. Carlton Ward, Jr., Fairfield president. "The Air Forces of Brazil and the Air Forces of the United States have already demonstrated the type of cooperation which is necessary among the United Nations if this war is to be brought to a successful and rapid conclusion."

Air Minister Salgado, following his visit to the United States during which he inspected Ranger facilities, indicated that he had learned why the United States had been able in two years to train soldiers who today are taking such an important part in defeating the Axis which had trained twenty years.

## The South American Way

Similar to U.S.A. air mail swamping was the situation confronting Brazil. Action taken: a presidential decree, specifying air mail paper in restricted sizes; no curtailment of number of letters sent.

Question is—will like decree be needed in America? Not if business firms and individuals *voluntarily* lighten the load by



*Brazilian air mail hits peak*

using lightweight air mail paper for air mail correspondence.

### Eaton Air Mail Paper Pioneer

Eaton forebears made their first lightweight papers in 1860 for use on the Pony Express. Logica, therefore, was the pioneering of Eaton in Air Mail papers. Long experience, meticulous manufacturing explain superior appearance and travel-durability of Eaton's Berkshire Air Mail Papers. Special envelopes and striking air mail design on sheets get preferred attention for correspondence. Economical: from 8 to 24 sheets fly for the minimum domestic rate.

And Berkshire Air Mail is only one of Eaton's Berkshire Papers for office use. See the complete line at leading commercial stationers.

Another problem solved by ...

*Eaton's  
air mail papers*

► LIGHTEN THE AIR-MAIL LOAD  
► USE EATON'S LIGHTWEIGHT PAPERS

Eaton Paper Corporation, Pittsfield, Mass.

# United Out in Open On Competition Issue: Sides with Pan Am and AE

*Patterson Resolves Mystery As  
He Urges One Company To Meet  
Other Nations in World Air*

A MONTH ago, when 16 of the nation's 19 airlines banded together in a manifesto demanding "free and open competition—world-wide" for air transportation in the postwar period, there were three notable absentees: mighty Pan American Airways, American Export Airlines and United Air Lines.

That Pan Am didn't warm up to the idea advanced by the 16 lines neither surprised nor puzzled anybody. For Pan American's great globe-girdling network of airways has been built in no world of free and unrestricted competition, and for a long time Pan Am alone flew the U. S. flag in the international air. American Export, relative newcomer to foreign flying, had similar reasons for not throwing its hat in the air for a wide open air world.

United, however, is in a totally different boat. As second largest U. S. domestic airline (No. 1: American Airlines), its interests would seem to be much the same as those of the 16 signers of the demand for free competition reported by AIR TRANSPORTATION last month. True enough, since Pearl Harbor United has been flying on some foreign routes for the Army's Air Transport Command. But so have other domestic airlines who were among the 16 signers.

But since the joint statement, United has finally come out in the open, through statements by President W. A. Patterson that make it completely clear that big UAL wants a combination of air transport talent in one big company—subject to Government regulation, of course—which would present united front for U. S. air transport against the competition of Government-subsidized organizations flying the flags of Britain, Russia, France and other nations after peace returns.

Patterson hastened to make it clear that his idea isn't to freeze out any U. S. airline, but to create a combined company in which all, if they like, may hold an interest.

"Let us take one company and get behind it," he declared last month, "and in that way we can satisfy our individual ambitions and create a strong organization under private enterprise to compete against government-operated monopolies."

The alternative, he plainly stated, is a situation where "we, by our own conduct, can create chaos—which leads direct to Government monopoly."

It wasn't the first time that the articulate Mr. Patterson had made news by swimming against the stream of majority opinion. One of the most often remembered times was almost a year ago when he told the whole aviation industry somewhat bluntly to stop its pipe-dreaming about air transport's replacing practically all other forms of transport and come to a practical realization of the airplane's physical and economic limitations.

This time, however, it wasn't merely the academic question of who was right or wrong about a question that's too far in the future for anybody to be sure of the answers. This time it looked very much like a fight. And should it become a fight, with United firmly lined up beside Pan American—with its wealth of flying experience on transoceanic airlanes and its



# Air Express Rates Reduced



Effective July 15th, Air Express rates within the United States were substantially reduced—many reductions ranging as high as 12½%, depending on the weight of the shipment and the distance it moves. As a result, the average saving to shippers amounts to 10½%.

Increased volume of Air Express traffic stimulated by wartime demands on this fastest form of shipping service—accompanied by peak efficiency in handling—has made it possible to pass these savings along to shippers of air cargo. So now, more than ever, *it pays to ship by AIR EXPRESS!*

**NOTE TO SHIPPERS:** To keep costs down—*pack compactly*, obtaining best ratio of size to weight. To insure fastest delivery—*ship when ready*—as early in the day as possible.



ASK for our new 1943-44 CALENDAR-BLOTTER. Write Department PR-10, Railway Express Agency, 230 Park Avenue, New York 17, N. Y.

Phone RAILWAY EXPRESS AGENCY, AIR EXPRESS DIVISION, Representing the AIRLINES of the United States

already highly developed contacts in dozens of foreign countries—and American Export, it was certain to be by no means as unequal a contest as the numerical lineup of 16 to 3 would indicate.

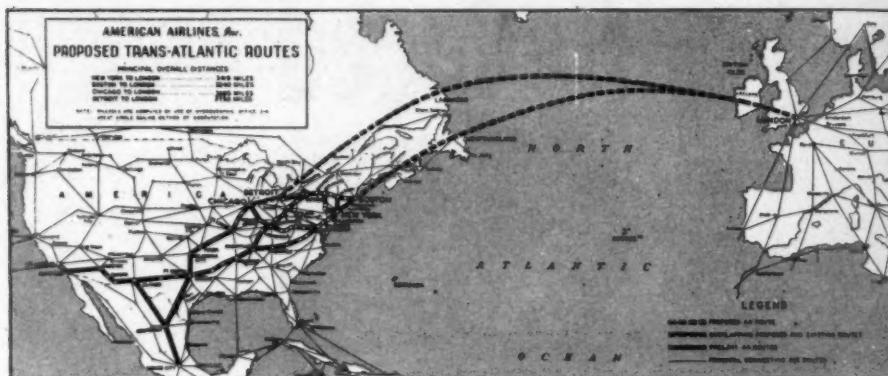
## American Airlines Seeks Route to London

Ocean flights on a great circle course over the North Atlantic is the new objective of American Airlines, Inc. In an application to the Civil Aeronautics Board, American seeks permission to start transoceanic air services between New York, Boston and London, and

between Chicago, Detroit, Boston and London. This action follows the recently declared intention of sixteen of the domestic air carriers, including American, to engage in international operations.

The selection of the New York-London and Chicago-London routes was the result of the company's study of foreign routes by which it determined it was "in a position most appropriately to operate economically and efficiently in the public interest and where the requirements of public convenience and necessity appeared to be greatest in relation to its domestic system."

The application set forth that American is presently in a favorable position to provide that service.



## Lightweight Packaging Saves Tons on Transpacific Flights

By reconditioning—the substitution of lightweight cardboard cartons for weight-and-space-consuming wooden crates on air shipments—the Transpacific Division of the Pan American World Airways System has saved 27,453 pounds, the equivalent of 9 Clipper cargo loads, in recent shipments destined for overseas points.

Reconditioning of air cargo, now an accepted practice for long-distance air transportation all around the world, had its inception at the Treasure Island, California, base of Pan American in the early months of the war. Since the procedure was adopted, total weight saving on the Transpacific air cargo shipments has mounted to 134,102 pounds (as of July 1, 1943). The total weight of air shipments in recent months has been cut 29 per cent by this method.

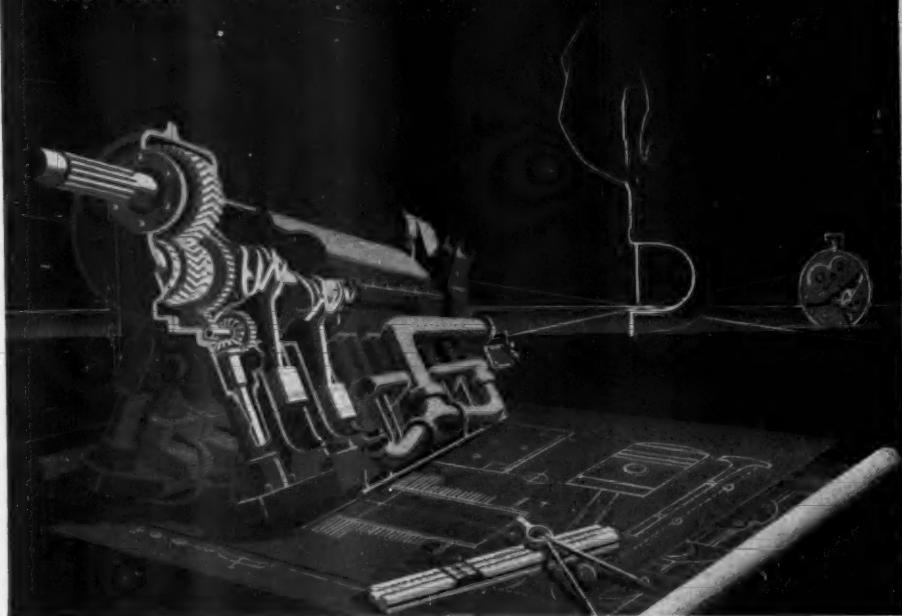
Within a few hours after the attack on Pearl Harbor, Pan American Clippers that had formerly carried books and magazines,

jewelry, glassware and clothing, began loading such vital shipments as airplane tires and submarine parts. Individual shipments of 500, 1,000 and 2,000 pounds became commonplace.

Division Traffic Manager V. A. Kropff soon realized that many of these shipments were packed for protection against rough handling. Since shipments aboard the Clippers get special handling, heavy packing can be discarded and the shipment broken up into several smaller units.

Sometimes it is necessary to work at top speed after the arrival of a shipment in the cargo room in order to get it ready for a scheduled departure. An outstanding achievement of this sort was effected recently when a single shipment of seventy-seven pieces weighing 11,802 pounds arrived within six hours of Clipper departure time. When the plane took off the shipment was aboard, but by that time it consisted of 199 pieces weighing 8,930 pounds. Exactly 2,872 pounds saved.

THE TOUCH OF TOMORROW IN THE PLANES OF TODAY.



## How Precise is Precision?

Maybe *your* yardstick is a fine watch. *Ours* is a Ranger 12-cylinder in-line, air-cooled engine. See the comparisons between the two listed below.

A whole battery of fine laboratory instruments, plus the genius of craftsmanship, are responsible for the Ranger's outstanding precision performance.

There's the spectroscope, for example—so sensitive it can spot a particle of metal as minute as seven parts in a hundred thousand. Fairchild uses it to explore and to control the metals in Ranger engines.

A quarter million volt X-Ray is another Fairchild key to secrets that are hidden beneath 4 inches of solid steel. It tells our engineers which metals can "take it."

### A QUALITY WATCH PARTS—about 350.

PRECISION measurements—wheel pivot held to a tolerance of 1/2 of 1 per cent of its diameter.

SPEED of moving parts—balance wheel oscillates 5 times per second.

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A beam of black light is played over machined surfaces to expose the structural "criminals" that may lurk within.

These and hundreds of other present-day miracles are routine matters for Ranger engineers and scientists. Result—the Ranger Engine . . . combination of precision and power...another Fairchild "touch of tomorrow in the planes of today."

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Duramold Division, New York, N.Y.



*A "flivver" mail truck beside a Western Douglas M-2.*

# **Western Piled Up Impressive 'Firsts' In 17-Year Operation**

## **Weather Reports, Emergency Landing Fields Were All Improvised in Early Trail-Blazing Days**

**PIONEERING** Western Air Lines, oldest existing airline in the nation with better than seventeen years of operation, has rolled up an impressive list of "famous firsts." First to complete a successful commercial air mail flight on April 17, 1926, Western actually made its "first flight" over the historic route in motor trucks. Harris M. (Pop) Hanshue, initial president of the airline, gathered his four original pilots and ten other employees together and set out over the Los Angeles-Salt Lake route in a surveying trip in June, 1926. The four original pilots were: Fred Kelly, now chief pilot of the airline; Jimmie James, now vice-president of operations; Al de Garmo, and the late Maurice Graham.

Starting from scratch is a mild term for that small group of men. Developments? There were none, of course. They invented the word as they began that first long, hard pull over the course to spot level ground strips for emergency landings

and intermediate fields. These they staked out with large canvas crosses.

In those days a cloud in the sky could mean anything. Pilots dressed for warmth in fur-lined electrically heated suits, and in winter wore fur-lined leather face

masks. Western's first fleet of planes had open cockpits, were powered with improved war-time Liberty engines, water-cooled, with 400 horsepower. They had originally been designed as Army observation ships by Douglas. Thus Western argues that among its "famous firsts" are the airline's developments of communications and weather analysis.

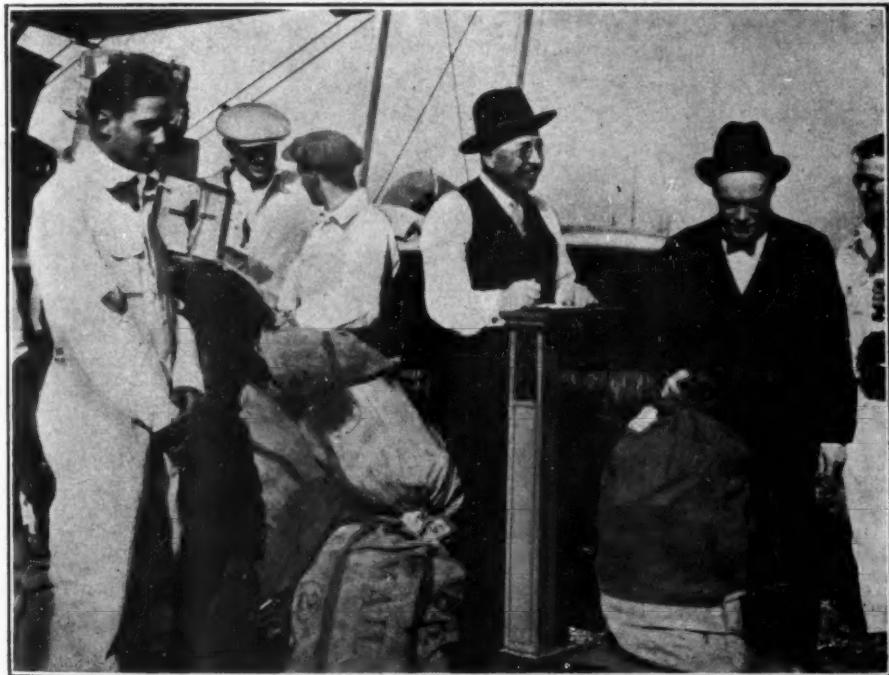
The earliest concept of weather reporting, say the old-timers, was a telegraphic forecast from the Weather Bureau in San Francisco, 350 miles from the closest point on the route. The operations department telephoned adjacent ranches and railroad stations for additional forecasts. A prize record of this sort occurred when the operations manager called a rancher, unknowingly got the wrong number, and asked, "What's the ceiling?" An indignant young woman answered, "Well, sir, if it's any of your business, I'd say it's about 8 or 9 feet off the floor!"

Western hired Herbert Hoover, Jr., to

tackle the job of whipping the weather into line. Hoover had ambitious plans of his own to link planes with ground stations by means of the two-way radio-telephone. It increased operating efficiency 35 per cent in a three-month period of the summer of 1929. All planes were equipped with the two-way radio system, which later became standard equipment of airlines. Western also set up twenty-two observation stations to report to airline meteorologists by telephone and radio.

CLOSE upon the heels of these two Western firsts came the radio direction finder to lead planes through fog and storm areas. It was of important consequence to aviation history when a pilot, flying on instruments without radio ear phones, beams or other audible signals, flew his Western ship to a point 500 feet above a designated commercial broadcasting station.

(Continued on page 30)



*The first president of Western, Harris M. (Pop) Hanshue, plus the postmaster of Los Angeles, P. P. O'Brien, and miscellaneous air men. Pop may be identified by grin and vest; primitive postmaster by the mail sack which he holds.*

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Cincinnati, O.  
Cleveland, O.  
Columbus, O.  
Dayton, O.  
Detroit, Mich.  
Erie, Pa.  
Fort Wayne, Ind.  
Grand Rapids, Mich.  
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Rochester, N. Y.  
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DIVISION OF ACME FAST FREIGHT, INC.



*An orchid for an early pilot — here Western takes aboard a shipment of orchids as one of its original cargoes.*

*(Continued from page 27)*

Weather reporting was further augmented with the theory of Norwegian air-mass analysis. Conducting research and experiments on this theory for Western was Dr. Irving Krick of the California

Institute of Technology. It proved vital to the industry by maintaining a scheduled efficiency of 96 per cent.

From such operations, Western Air carried 75,000 passengers during its first seven years, and flew more than 14,000,000 miles without a single fatality. Western was the first airline in the nation to establish a ten-year passenger safety record.

But not all of Western's "famous firsts" fall in the operations division of the airline. Western was the first airline to encourage passenger traffic, and as early as May 23, 1926, carried the first commercial airline passenger, Ben F. Redman of Salt Lake City (plus friend).

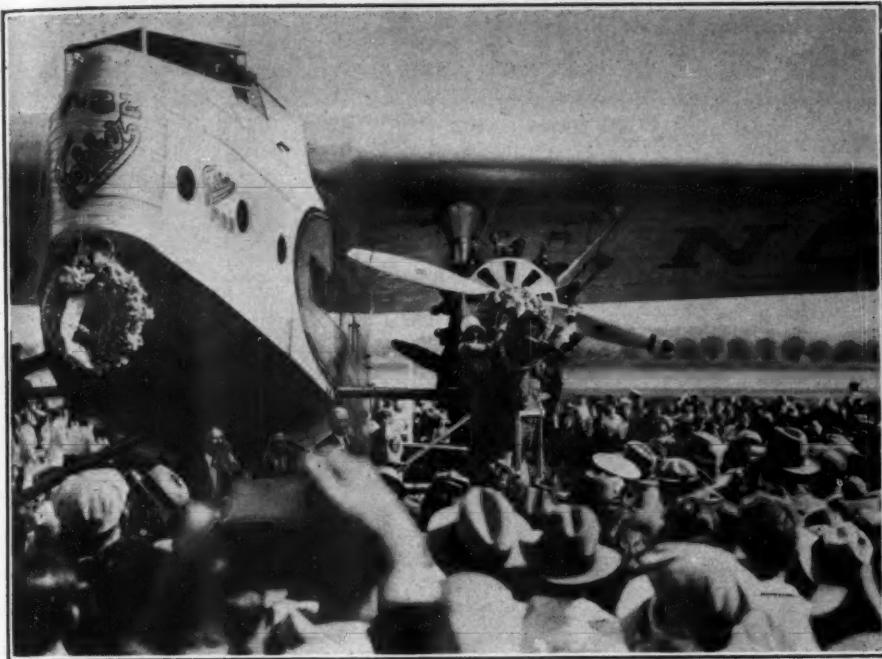
In the first eight and one-half months that followed, 209 passengers sat on the mail bags, ate from box lunches and made aviation history. The next year they were followed by 400 more, and from then on passenger revenue climbed steadily.

**WESTERN** was also the first airline to launch a systematic campaign to sell the public on air speed. Airmail poundage increased, and Los Angeles, Western's headquarters, is today declared to be the greatest user of air mail per 1,000 population.

In May, 1928, Western established a "million dollar airway" between Los Angeles and San Francisco with the aid of a Guggenheim fund. This is the first record of an equipment-trust loan granted to an air carrier. Later, Western bows politely and says it is the first airline to operate multi-engined cabin transport planes—the four-engined Fokker F-32's, which revolutionized air transportation. The "million dollar airway" was also the first attempt of an airline to fly a route for passengers only and without the benefits of an airmail contract.

Transporting vital cargo and supplies to undisclosed war fronts, Western is today pioneering new air routes for the traveling public and cargo manufacturers of tomorrow.

**OTHER DAYS, OTHER WAYS**—In the middle is Western Air Lines' Herbert Hoover, Jr., at the left is Jimmie James, now present vice president of operations of Western and at the right is Fred Kelly, now chief pilot of the aforesaid firm. The discussion is about two-way radio communication, which in no way whatsoever explains Kelly's display is of the can-opener-screw-driver element of a Boy Scout knife as shown, although there is the possibility that Kelly in the early days of Western fixed two-way communications (to say nothing of planes) with the brandished implement. ➔



*An early Western transport plane is started on her way with cheers, flowers, champagne and movie actresses. The scene: California. The time: 1930. The plane: a four-motored Fokker.*



# AIR CARGO PERSONALITIES

Another in Air Transportation's Series



**Croil Hunter**

## *Croil Hunter*

### **President, Northwest Airlines**

**T**HE day of swift air fleets carrying passengers and cargo was still in the future as young Croil Hunter, tanned by the prairie wind and sun, rocked at the lazy pace of his horse along a wagon trail in the Indian country which stretched west from Fargo. He rode westward on the business of his father's wholesale mercantile company at Fargo, calling on customers isolated by the prairie miles.

Hunter's father had been one of the early settlers in the rich Red River Valley which divides Minnesota and North Dakota. He had set up his store in Fargo and, with the help of his son, expanded it into one of the largest enterprises in the Dakota country.

Years later, along the line of that same wagon trail, Croil Hunter rode westward on a plane of the Northwest Airlines fleet as president and general manager of the company and one of the pioneers of aviation in the northwest. But there had been many steps in between.

In his teens Hunter left the prairies for Yale University. The war took Hunter into the army and, with the rank of captain, he was put in charge of a post exchange which meant management of buying and selling. He made the post pay, and, with the coming of peace, convinced more than ever that his interests and talents lay in the field of business, he went back to Fargo to his father's company.

Aviation was in its important pioneer days.

Hunter watched the tentative tests with great interest during the Twenties while he built more firmly his business foundation as treasurer of the Fargo Mercantile Company. People were beginning to accept the idea of vast air fleets that could transport men and even cargo, when Hunter went East again in 1929 as eastern representative and manager of the New York office of First Bancredit Corporation.

More than ever the fascination of speedy air transport, heightened by many trips through the West, kept him close to the industry itself. On March 15, 1932, determined to fall into step with the new ambitious enterprise, he became general traffic manager for Northwest Airlines. One year later, he was promoted to vice-president and general manager, and in July, 1937, was elected president.

During these years, as when he rode

on horseback as representative of his father's company, Hunter visualized the urgency of air transportation throughout the West. Accordingly, he began planning the expansion of Northwest Airlines, originally serving only between the Twin Cities and Chicago, into the west.

He accompanied his pilots on trail-blazing flights over the plains and the Rocky Mountains, studying sites for airports and emergency landing fields. Over a large area in the West, they followed practically the same route taken years ago by the Lewis and Clark expedition.

From Minneapolis and St. Paul, where the company had been founded, the line pushed West slowly, first to Hunter's home town of Fargo, and then north to Winnipeg. Gradually the expansion brought the airline into Billings, Mont., then to Spokane, Wash.; on to Seattle and into the Southwest as far as Portland, Ore., completing the link between Chicago and the northwest corner of the nation. Already established as one of the nation's leaders in the industry, Hunter began the fight to extend Northwest Airlines to the eastern seaboard and Washington, D. C.

Months before the new war broke out, Hunter perceived the vital importance of Alaska as a strategic territory in the defense of the country. He made a survey flight into that north country, studied the problems of running air service into the area and set up the machinery for the cargo routes which already have demonstrated their utility in the program of war.

Now he looks beyond the war, anticipating the new role of air transportation in the vast network of swift travel, and has planned the application for routes by which Northwest Airlines would extend its service into the Orient, to China, the Philippine Islands and India. He was a member of the committee, serving with Jack Frye, President of Transcontinental & Western Air, Inc., and other airlines

executives, which recently drafted a declaration of policy on worldwide air routes.

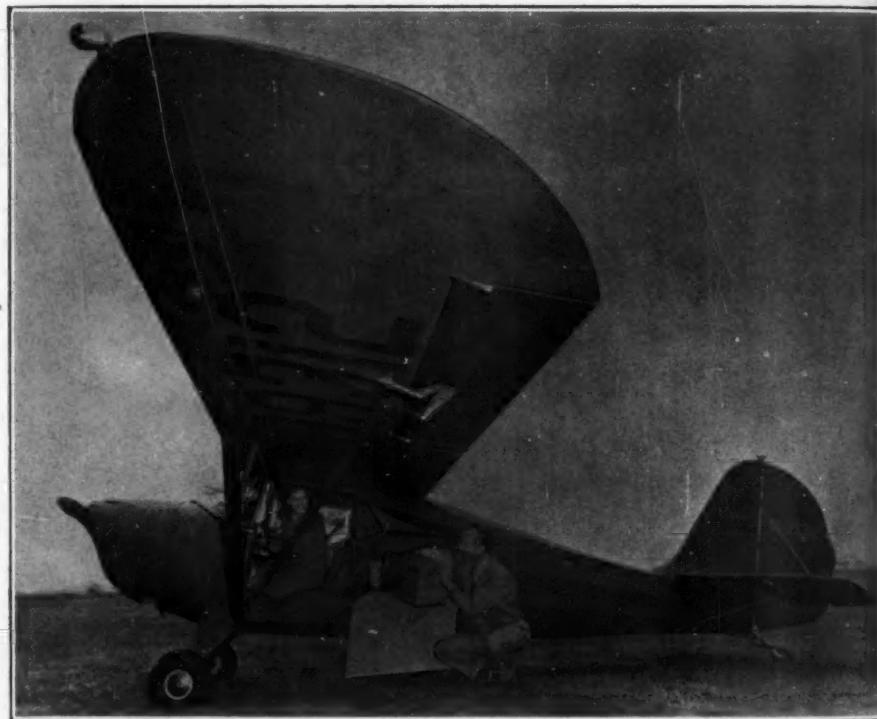
In recognition of his leadership in aviation, Hunter was named a director of the Air Transport Association of America, of which he is now vice-president.

Hunter has contributed in many ways to the general advancement of the industry. Several years ago, for example, he made available a Northwest Airlines plane and crew to fly Dr. William Randolph Lovelace, II (now a lieutenant colonel in the U. S. Air Forces, in charge of the aero-medical laboratory at Wright Field, Ohio) and other Mayo Clinic scientists on a flight during which tests were made of oxygen

masks and other high altitude equipment such as are now used by American war flyers. Individual outlets for oxygen, developed partly through these tests, have since been installed on NWA domestic carriers.

Through his travels and vast business associations, Hunter has numbered among his acquaintances such world figures as President Roosevelt, Wendell Willkie, Joseph E. Davies and Captain Eddie Rickenbacker.

Over the door of his office in St. Paul hangs the head of an antelope, a trophy of his hunting; and atop a bookcase stands a wood carving of a western pioneer on horseback, reminiscent of his own days of prairie riding.



**DESIGNED FOR CHINA AND BRAZIL**—A plane was needed for quick, light loads over jungles and rivers, mountains and deserts. Aeronca therefore redesigned a side-by-side model to allow room for personnel of one and such light cargo as blood plasma, ammunition, hospital supplies and the like. Here the plane is being loaded for an early flight. Details: low horsepower motor; large cargo door; low landing speed. In the scene: a girl with a nice smile and Carl Friedlander, president of Aeronca Aircraft Corporation, plus freight.

*Wings for  
your Cargo*

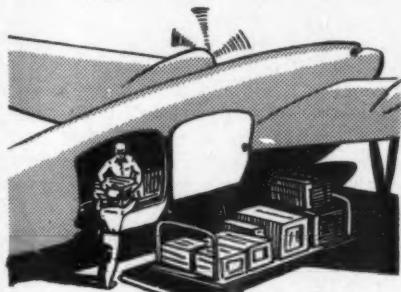


## A NEW AIR EXPRESS SERVICE TO CUBA

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# Impressions of a Tour Of 20,000 Miles to Speed Inter-American Growth

By ERIC A. JOHNSTON  
*President, Chamber of Commerce of the United States*

THE post-war theories advanced by some planners in the United States and Great Britain are based on the idea of a mature economy—an economy in which the frontiers of the land have been reached and the frontiers of the mind are closed. Yet, obviously, the greatest frontier of the future is to raise the standard of living of the submerged peoples of the globe.

We must never forget as we look toward the future that America has become great because she placed no ceiling on opportunity. During my recent 20,000-mile tour by air through seven Latin-American Republics as chairman of the United States Commission for Inter-American Development, I am happy to say that I found representatives of government, business and labor in complete agreement on these three points for a post-war program: (1) That the stimulation must come from private industry and endeavor. (2) That the program must be on a cooperative basis of American capital and ingenuity, with local resources and labor. (3) That efforts must be made to eliminate barriers to trade in various countries.

It is very probable that our international trade of the future will be more vertical than horizontal—between the Americas as compared with the pre-war exchange between Europe and America. In this connection the war is illuminating an old fact: All the resources necessary to a modern civilization are available in the Western Hemisphere.

North American business is dedicated to the development of all the Americas, regardless of the political party currently in office. New trade routes with South America, opened by the war, must be deepened and made more permanent after the war ends. Inter-American cooperation of the future must be in every sense a two-way highway, with cooperation on both sides.

South America needs aid in developing

industries, for industrialization spells increased employment, increased purchasing power, increased inter-American trade. It is fallacious to assume that industrialization retards trade. Our highest trade levels have been maintained with industrialized nations.

My tour of Latin-America has convinced me that just as private enterprise is the method, so is aviation the means of unlocking the door of industrialization in the continent to the south of us. There are so many places in that vast and fruitful land which are completely inaccessible except by air.

My own trip, across the Caribbean and down the east coast of South America to Rio de Janeiro and Buenos Aires; across the Andes to Santiago in Chile and up the west coast through Peru, Ecuador and Colombia to the Canal Zone, took less than a month and left me ample time to carry out my business in each of the countries I visited. Only by air would such a trip have been possible. Surface travel over the same route, even in peacetime, would have meant a matter of months instead of days and hours. In wartime it would have been out of the question.

Air transport already has reached a high stage of development in Latin-America. As of last spring the total mileage there was 106,828 route miles. Three airlines, Panair do Brasil and Pan American-Grace Airways (both affiliates of the Pan American World Airways System) and Brazil's Correio Aereo Nacional (the government's mail line) each exceed in



*Eric A. Johnston*

extent of routes any domestic airline within the United States.

Of the thirty-nine airlines operating in Latin-America, eleven are directly or indirectly elements of the Pan American Airways System and account for more than 55 per cent of the total route miles. Through all-American enterprise air transport between the Americas and within the Latin-American nations themselves has reached its high stage of development.

The United States' first—and at the outbreak of the war—only international overseas airline, Pan American made its first commercial overseas flight of ninety miles between Key West and Havana in 1927.

Today it operates between the Americas more than sixty flights weekly through four international air gateways, Miami, New Orleans, Brownsville, Texas; and Los Angeles. Through Pan American's trunk lines and connections with its affiliates, and the domestic lines in the United States these gateways provide direct air links between every area of the United States and more than 200 cities in the twenty other American Republics and the islands of the West Indies.

#### *Cargoes of Tomorrow*

But as great as air transport's accomplishments are now when fully geared to

the war effort, they will undoubtedly fade into insignificance tomorrow in peacetime before the planned transportation of merchandise and goods of all kinds on special cargo planes, of passengers on business or pleasure journeys, over the new routes and through the new airports that are being developed.

For example, Mr. Trippe already has disclosed that more than a year ago Pan American began a program for the construction of fifty giant Clippers, each capable of carrying 153 passengers from New York to London in ten hours at a fare of \$100, or to Buenos Aires in 22 hours at a comparably low fare. It is easy to imagine what great advantages will result from such a speedy means of shipping goods and from the opportunity it affords business men from the North and South to get together more often to talk things over.

All in all, Pan American's contribution to air transport development stands out as a prime example of those very points in the post-war program between the Americas on which I found labor, management and government in close agreement. Pan American's stimulation came from private industry and endeavor. It was developed on a cooperative basis. It eliminated some of the greatest barriers to trade that nature has devised. And its success as an enterprise as well as the great benefits it has brought to all the peoples in the countries it serves demonstrate most clearly what happens when, in the spirit of all-American cooperation, we send money, management and technical skill down the broad avenues of exploration and not the blind alleys of exploitation.

Today America is demonstrating on battle fronts around the world that we have mastered the art of mass production. But even as we push mass production to new peaks, so must we devote all our ingenuity to master, with the aid of air transport, the art of mass distribution. Then the end of World War II should mark the final passing of the age of financial and territorial conquest among the nations and the new era will be one of economic partnership, with American business taking the lead in fostering a broad, cooperative venture in international prosperity and good will.

## Miami-Havana Air Cargo Service Now in Operation

Granted a common carrier certificate by the CAB, Expresso Aereo Inter-Americano has started operations on a six-trip-a-week basis between the United States and Cuba, with a four-plane fleet including two Ford tri-motored landplanes and two twin-engined Sikorsky amphibians.

With its present equipment, INTAM will be able to move some 42,000 pounds of freight a week between Miami and the Cuban capital, according to Gustave Bustamonte, vice-president and general manager. Chicks, ducklings, medicine and seeds are among the items for which Cuban importers have already indicated they would contract, Bustamonte asserted, while manufacturers of cigars, maracas and other items are expected to provide the bulk of the Miami-bound cargo . . . First Cuban-owned airline to operate into the United States, INTAM is headed by Dr. Teodoro Johnson, prominent Cuban businessman . . . Arrangements have been made to use the Pan Am field at Miami as the U. S. terminus of the line.

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# IT'S AN WORLD

By L. A. GOLDSMITH, *Economic Analyst, AIR TRANSPORTATION*

**D**URING the last week of August, a new phase of aviation and development took place. The Brazilian Government and the Fairchild Engine & Airplane Corp. signed a contract. Under its terms Brazil will build Ranger airplane engines at the recently completed engine plant, Fabrica do Motores. The engines will be used to power the Fairchild M-62, already in production at Galeao Aircraft, on an island in the bay at Rio de Janeiro, under a contract negotiated last year.

## Brazil Blazes New Trails In Aviation Manufacture And Expands Her Air Force

aircraft every made from North to South America. Under the new contract Fairchild will provide complete drawings and manufacturing data for engines, jigs, tools and fixtures. Facilities of the Fairchild and Ranger plants at Farmingdale and Jamaica, L. I., will be available for instruction of engineers and mechanics designated by the Brazilian Air Ministry.

Negotiations have been in process for almost a year, and were completed during the recent visit of Brazilian Air Minister Joachim Pedro Salgado, Filho. The signing took place at the Brazilian Embassy in Washington. Major Miguel Lampert, Chief of the Brazilian Aeronautics mission to the U. S., signed for Brazil in the presence of Dr. Carlos Martins Pereira e Souza, Brazil's ambassador.

Harold H. Budds, vice president of Fairchild, represented the corporation, and Alexis R. Stocker, director of foreign relations for Fairchild, was also present.

The whole event foreshadows the part that the U. S. will play in the development of the world's resources, not only in raw materials and manufacturing processes but in communications and transport. It surely is the forerunner of many future contractual relations by American aviation manufacturers with foreign countries.

In expressing his own opinion, Air Minister Salgado commented: "Only by visiting American factories can the human mind register what is happening in this great country. Thanks to the United States, the Brazilian Air Force is increasing daily, and patrols an extensive shore line from Santos to Belem." What a difference in outlook, compared with the days, now happily distant, when our neighbors to the south referred to us as the "Colossus of the North" in terms of fear and suspicion. Now they have also learned to know that though the U. S. may be a colossus in size, she is a neighbor who can also be a good friend and a valuable ally.

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**W**HEN the events of our present-day Air World era have long since become part and parcel of history, the name of Walt Disney will loom large for posterity. Not as the creator of Mickey Mouse or Donald Duck, but rather as Aviation Specialist and Educator Extraordinary.

## Salute to Walt Disney, Aviation Specialist & Educator Extraordinary

The names of noted aircraft builders and bombing experts will come and go in a succession of record-breaking performances. But Disney will leave a permanent imprint of the present on the future progress of aviation.

Look at the setup; there is the film, *Victory Through Air Power*—positively electrifying in its impact on both imagination and factual information.

Even the conservative New York *Times* honors this film with editorial comment and commendation as "an unusual document—more vivid than any textbook could be . . . The picture was made long before the Ruhr dams were bombed and broken. Yet animated diagrams show us exactly how it was to be done . . . It [the film] professes to offer a precise chart for future air power. It cannot fail to expand it."

In line with the film's power to hasten air expansion, it might almost be said that Disney

was an unofficial envoy to the Quebec Conference—by virtue of a special showing of the *Victory* film, which was attended by many of the naval and military experts present at the conference.

Now to top the *Victory* film—the U. S. Navy turns to Disney, using Disney cartoon films as a mass production method for mass instruction of thousands of naval aviators.

A new and different type of educational film called *AeroLOGY* is the specialty now in production at the Disney studios. Working under the supervision of Navy airmen, this visual celluloid textbook is being prepared by members of the Disney staff for the Navy's Bureau of Aeronautics. It will graphically portray the experiences of more than a hundred of the greatest United Nations flyers, as well as the exploits of distinguished civilian and commercial pilots. The practical requirements for studying weather conditions will also be stressed, as well as many other conditions causing flying hazards.

*AeroLOGY* is being grouped into eight sections, and a series of accompanying booklets, one for each of the eight films, is being issued by the Bureau of Aeronautics. Both Navy instructors and trainees have enthusiastically welcomed this style of training. It is officially believed that after the war motion picture training will become standard practice in flying schools all over the world.

More power to Walt Disney—he seems to be on his way to new honors every day. His *Saludos Amigos* evoked enthusiastic response from our Latin American neighbors. Mexico has just honored him with the decorations of the Aztec Eagle, wishing not only to accord him this honor but also to request his collaboration with Mexican artists in creating a series of films for use in the Mexican educational system. Taking it all in, it would seem that Mr. Disney adds up to that estimate of Aviation Specialist and Educator Extraordinary!

---

THROUGH the magic touch of today's Air World an arduous trip of about 20 days, involving "combined operations" of mule-back, boat, train, and automobile was changed into a mere matter of 20 minutes, believe it or not! Here's the story as it was told to me by the owner of the ranch which is the vacation point of the story.

### **And For A Lighter Touch Here's A Vacation Story**

aviation days it was a great distance from the city in which they lived, and it required a considerable undertaking—not only three weeks' travel each way, but also endless packing for a stay of at least three months.

Then came aviation! The family built their own private air field at the hacienda, and—presto!—zoomed through the air in *20 minutes flat*; instead of in 20 tedious days. They could now visit the hacienda for week-ends or even overnight. The air field proved so convenient and useful that the Government bought it for military use, but the proviso was made that the family ownership for personal landing rights would be maintained. And you can rely upon it that all members of that family gladly avail themselves of the privilege.

---

CAN you imagine that in the big blitz over Berlin in late August, there was actually a "traffic cop" on hand directing the raiders as they arrived over their targets? What's more, the "traffic cop" called his orders verbally in plain English and in open hearing of the enemy.

### **Can You Imagine Such Things Can Be!**

And how about this little item for the imagination? A 6,100-lb. piece of machinery was needed for repairs to a light cruiser which had been disabled in a foreign port. And that little repair part of some three tons was flown to its destination—5,300 miles away—in less than

two days! The Navy gave out the news so we have to believe it.

## Acme Fast Freight and Intam Join Forces For New Express-Air Link to Cuba

The first foreign rail-express and air service in U. S. history provided by a freight forwarder will be inaugurated between 45 domestic points and Havana, Cuba, on Sept. 15 through an arrangement between Acme Overseas Express and the newly established airline of Expreso Aereo Inter-American, S.A. (INTAM).

Acme Overseas Express is a newly established division of Acme Fast Freight, Inc., 25-year-old forwarder of fast freight by rail. It will employ as receiving stations for the new through express-air service 45 of the branches of Acme Fast Freight, located in a like number of cities throughout the Atlantic and midwestern states and extending as far west as St. Paul and Omaha.

New and unusual as the service is, it will be but the first step in progressive expansion of Acme into the international express-air field, according to the company's opening announcement.

Through the new service, shippers may deliver their shipments of air cargo to any one of the 45 Acme Overseas Express receiving stations, with certain specified documents, and receive a through airwaybill covering all transport charges for the entire movement from receiving station of origin to downtown Havana. No consular invoices are required. Transfer of shipments from fast rail express trains to Expreso Aereo Inter-American's terminal at Miami, Fla., is handled entirely without charge and, Acme assures its customers, with a minimum of delay.

Expreso Aereo Inter-American is a Cuban-controlled company which recently was granted a permit by the Civil Aeronautics Board to fly cargo between Miami and Havana, thus substantially increasing the total available airplane space between Florida and Cuba. Its present schedule includes two daily cargo-carrying flights between Miami and Havana—a two-hour flight.



## Shipments to MEXICO

are easier to make when you mark them:

### "VIA AMERICAN AIRLINES"

We handle outbound United States and  
Mexican customs clearances for you

FOR AIR EXPRESS PICK-UP, CALL RAILWAY EXPRESS AGENCY, AIR EXPRESS DIVISION

# AIR TRANSPORTATION NEWS

(TRADE MARK)

## Pioneer in Short-Haul Air Routes Demands Lines for 'Forgotten Cities'

The air transportation industry has forgotten too many American cities in settling up its network of routes and ports, in the opinion of C. Bedell Monroe, president of the Pennsylvania-Central Airlines. In his demand for better air service for the nation's "forgotten cities," he recommends a program of local and feeder services which would link with main air terminals many of the communities that do not have access to air transportation. Speaking before a meeting of the Adcraft Club and the National Aeronautic Association chapter of Detroit, he proposed a "directional development" by existing airlines of those areas within reasonable distances of either side of existing air routes.

The PCA head, whose company has pioneered in the field of short-haul air transportation and has recently offered an important trans-oceanic plan to establish a Seadrome route to Europe, suggested that "we cease to subordinate our domestic needs to international planning and give immediate thought to this vital question. This is very much our obligation and very much a public trust. If we don't prepare now to initiate these local and feeder services, we'll provide a significant barrier to the progress and expansion of those American cities that have clearly shown their need for this type of aviation."

As proof of the need and success of serving smaller communities, Mr. Monroe pointed to the country's first short-haul route between Detroit, Flint, Lansing, Grand Rapids and Muskegon which, years ago, was laughed at when initiated by an industry which thought only in terms of spanning distances and continents and failed to consider that neighboring cities had the same right to air transportation as distant cities. The success of this and other PCA short-haul operations, which have brought about considerable intra-state travel by air, "proves conclusively the need of shortening distances between air hops, of giving progressive communities a break and of the economic wisdom of such an operation."

Apart from meeting the demands and needs of communities not now being served by air, Monroe declared that it was the industry's further responsibility to provide jobs for those who return after having fought and won our battles. He emphasized the industry's responsibility to develop such a program and declared that the franchise under which the existing airlines now operate imposes a definite obligation to develop those territories—particularly in the more densely populated areas—which they now serve. "It is in the public interest that we do so," he asserted.

## Wanted: Federal Corporation to Dispose Of War Planes After the Peace

Already, the air industry is beginning to think of what to do with war planes after World War II had come to an end. L. Welch Pogue, chairman of the Civil Aeronautics Board, proposes thus:

A government corporation to dispose of military aircraft to prevent a breakdown of America's aviation industry.

Selling the planes to the highest bidders would waste a defense reserve and deal a blow to the development of transport aircraft

that would take years to heal, he told the Los Angeles aviation forum.

The aviation industry cannot operate upon tomorrow's use of today's aircraft. Its future growth must be linked with the development of new and increasingly more efficient aircraft.

If the end of the war finds the aircraft manufacturers limited to the capacity to produce only replicas of aircraft of which there is already a large surplus on hand, Mr. Pogue believes the industry will have missed a vital opportunity.



**PORTE OF BRITISH AIRPOWER** in the postwar era, likewise the ace Ruhr-flattener of the war, is the RAF's famed Avro Lancaster bomber. Powered by four 1,280-horsepower Rolls-Royce Merlin engines, it has a 3,000-mile range, 300-mile-per-hour speed, eight-ton payload of bombs.

## Program for Vast Air Fleet Launched by the British

LONDON.

AFTER a long period of apparent indecision and a great deal of controversy, Great Britain is now away on her post-war civil aviation plans with all engines humming. The intention to build a fleet of airliners without peer has been already promised in Parliament, and this fleet is now on blueprints and surely coming into being.

The war cabinet has issued orders, following on the recommendations of the Brabazon Committee, which was charged with the duty of making a survey of Empire air routes and types, for the designing and erection of four new types of plane: a mail plane, a freighter for heavy work, a feeder plane to service the others and a giant air liner for fast passenger work.

Each of these projects has been given to one of the important British companies. Instructions are to plan, model and build their designated type on condition that the work does not detract from present war production. The selected types are all land planes and not, as in the past, seaplanes.

Which firms have been so instructed is not known, but one authority has suggested that they include the Bristol Aeroplane Company,

the de Havilland, and the Handley Page Ltd. Such a guess or informed estimate would be on reasonable lines since these three are perhaps the most famous of the older companies, with a technical and constructional staff capable of the work entrusted to them.

It is believed that the Handley Page job will be the production of a heavy freighter, on the lines of their Halifax bomber type, with greater speed and larger in size.

The de Havilland company is believed to be responsible for the feeder plane, which would give local services to the liners, and it is believed in British aviation circles that this will be an improved Flamingo, thus continuing the type which was used extensively in the prewar Imperial Airways fleet and still is in commission.

The giant liners of the new fleet would be built by the Bristol people and are believed

to be mammoth in size and type, resembling Queen Elizabeths of the air.

Aviation men believe that the British Government plans to construct a fleet which will be unrivaled in the world for capacity and strength, and this is confirmed by the routes and the Empire cooperation which is being arranged. All the Dominions have been asked for suggestions and these will be included in the final designs.

The period of time which will elapse between the present start and the actual construction of that fleet is estimated at not less than four years. If the war ends before that date, the British will be found to be in the middle of a reorganization and without a fleet equal to its new requirements. In this emer-

gency it was at one time suggested that American sources would supply planes, but the feeling here is rather that the Avro company's Lancaster will be used in its altered shape as the York, an air liner of which a good deal has been heard lately.

Carrying twenty, with a range of 3000 miles, it has already been put into general construction and has been proved of very great service as a small-scale liner. It can be created in a wide variety of types to suit specific purposes. This York would certainly prove of great value in the intervening period which is foreseen and its mass production methods would certainly allow it to be turned out in sufficient numbers to cover Empire services in the reorganization period.

## American, Eastern Ad Campaigns Win Places in Newspaper "Blue Book"

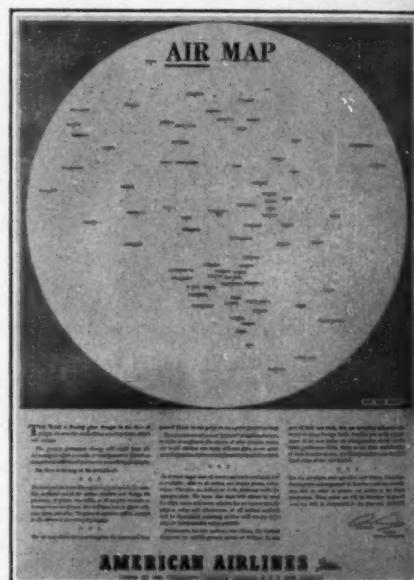
Two notable air transportation advertising campaigns in newspapers won places for themselves among the 69 most successful newspaper campaigns of 1942-43 reported in the 1943 edition of *The Blue Book*, published annually by the Bureau of Advertising, American Newspaper Publishers Assn.

Though campaigns reported by *The Blue Book* annually since 1939 are not judged in a formal competition, the inclusion of any campaign in the volume has long been recognized as a major index of advertising achievement.

Among the most spectacular public responses reported in any of the 69 campaigns of all kinds covered in the new volume was that scored by American Airlines' opening ad of its series designed "to increase public understanding of the air as the universal realm for transportation." The ad was the famous *Air Map* dominated by a big white circle packed with the names of cities around the world but totally devoid of surface boundaries and landmarks.

Appearing in 26 daily newspapers in 16 major cities, on last Nov. 2 and 3, the ad drew more than 200,000 spontaneous and unsolicited requests for reprints by the end of the year. Time after time, it had to be sent back to the press to satisfy the continuing demand for reprints—a demand typified by the request of Columbia University for 200 copies for distribution at a Columbia-sponsored educational convention.

"The *Air Map* is typical of the editorial type of advertising which American Airlines looks upon as one of its essential wartime activities," P. P. Willis, account executive for American at Ruthrauff & Ryan, Inc., declares in *The Blue Book*. "Designed to influence



public opinion in much the same way as the newspaper editorial, these messages have a logical and effective setting when placed in the nation's newspapers." Two-thirds of American's space appropriation was allotted to newspaper advertising.

Eastern Air Lines, like American, used full

newspaper pages for its campaign, aimed more at the present than at the future, and showing the contributions of the air transport industry to the war effort, especially in connection with the creation and operation of today's far flung Air Transport Command. Col. Edgar S. Gorrell, president of the Air Transport Association of America, cited the campaign as making a major contribution toward "bringing together, both physically and mentally," the airlines and the Army's air service of supply. One of the ads, a salute to the *Army Air Forces*, won the unusual honor of reproduction in the *Congressional Record*. The Eastern campaign was prepared by Campbell-Ewald Co., Inc.

In these two aviation campaigns and in similar case histories on 67 other campaigns appearing in newspapers in 1942-43, the Bureau of Advertising documents the theme, expressed in the foreword to *The Blue Book*, that "the force that nobody knew has become a wartime miracle."

"Advertising, like industry," the volume points out, "underwent the travail of a great conversion. Out of conversion's labor-pains came two great and parallel discoveries: that



American industry, geared to war, could out-produce the fondest estimates of peacetime optimism—and that advertising, likewise

**BARR SERVICE**

**27 Years OF CONTINUOUS SERVICE**  
TO THE AIRPLANE EXPORT TRADE

\*\*\*\*\*

**INTERNATIONAL SHIPPING AGENTS**

\*\*\*\*\*

Complete Facilities Arranging, Dismantling, Boxing,  
Forwarding, All Risk Insurance

**BARR SHIPPING COMPANY**  
HARRY K. BARR, President  
25 BROADWAY NEW YORK  
Cable Address: BARRSHIPCO

geared to war, could turn in a kind of performance that few of its practitioners had dreamed was possible.

"The success of advertising-at-war has also been due to a great public awakening, a vast popular thirst for information, that has nowhere been more apparent than in people's interest in and attitude toward their newspapers. And nowhere but in newspapers have so many people been able to find—quickly and

fully and visually presented—so much of the vital information they need to carry on their homefront tasks. Inevitably, more and more advertisers anxious to reach the people with informative messages have turned to newspapers. Almost as surely, those who have told their stories well in newspapers have been rewarded with new highmarks of public attention and response."



TO Ralph S. Damon, returning to active service with American Airlines, Inc., in September, Mr. Damon will become vice-president and general manager. Mr. Damon was granted a leave of absence by American Airlines in May, 1941, to become president of Republic Aviation Corporation, in order to assist the latter company attain quantity production of the Republic P-47 Thunderbolt, the high-altitude fighter airplane now in combat service with the United States Eighth Air Force over Europe.

After he had established satisfactory production of the airplane at the Republic plants at Farmingdale, N. Y., and Evansville, Ind., Damon requested his release.

Commenting on Damon's return to American Airlines, A. N. Kemp, president, said: "I am particularly happy to have Mr. Damon return to American Airlines at this time. In carrying out the war effort as well as preparing for the peace which lies ahead, the air transport companies have a tremendous job before them. The drive and stimulus he will provide will be extremely valuable in assisting our company to execute its responsibilities in doing this job. Mr. Damon is recognized



Ralph S. Damon

as a most successful airline operator, who has already contributed much to the development of air transport and is well fitted to play an important part in our future development.

TO Arthur Foristall, representing Hill and Knowlton as director of public relations for the Consolidated Vultee Aircraft Corpora-



tion at San Diego, on his being named a resident partner of Hill and Knowlton.

A native of Newton in Massachusetts and a graduate of Harvard, Foristall was with Dow Jones & Company, Inc., in Boston. Later he was with the editorial board of Poor's Publishing Company in New York, and immediately before joining Hill and Knowlton he was with the investment banking firm of J. A. Hogle and Company of Los Angeles.

Foristall represents Consolidated Vultee on the public relations committee of the West Coast Aircraft War Production Council.

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**To** Edith Juell, a member of the public relations staff of Transcontinental & Western Air, Inc., for the past two years, who has been named Cooperative Advertising Manager for the airline. Miss Juell will be in charge of



**Edith Juell**

in positions to replace men called to the services. In January, 1941, Miss Juell transferred to the Public Information Department. A resident of New York since 1936, Miss Juell was born in Minneapolis, Minn., and attended schools there and in Detroit. She is also a graduate of the Grand Rapids Junior College, Grand Rapids, Mich.

**To** J. H. Fountain, who has been named manager of the Sperry Gyroscope Company by R. B. Lea, the Sperry company's vice president for sales.

**To** H. Reed Cooley, for his appointment to the position of New York publicity representative for American Airlines, Inc., as announced by the eastern traffic manager of the airline, Herbert J. Lyall. Cooley has been with American Airlines since 1940. Before his present position he was traffic representative in New York.

**To** Jack Long, formerly traffic representative for United Air Lines at Long Beach, who has become the United Air Lines traffic representative at Hollywood, succeeding the late E. H. Forrest.

**To** Arthur A. Arnold, who has been appointed chief passenger agent of United Air Lines at LaGuardia Field, New York. Arnold has been a United passenger agent at LaGuardia since its opening in December, 1939.

**To** Squadron Leader  
*J. R. Gilmore,*  
navigator on the  
Trans-Canada flight  
from Montreal to  
Great Britain,  
a flight that clipped  
25 minutes off the  
best previous time.  
The plane carried  
mail.



**To** Edward Rosa on his appointment as Philadelphia district mail and express traffic manager for Transcontinental & Western Air, Inc. Born in Philadelphia, Rosa attended Northwest High School and Wharton University evening sessions, completing the two-year course in salesmanship. He joined TWA last March as a passenger agent. He was formerly retail representative for the Philadelphia Electric Company, with whom he had been associated for fifteen years. Rosa has a wife and two children.

## AIR CARGO INSURANCE

MAIL • EXPRESS • FREIGHT

CARRIERS LIABILITY—SHIPPERS ALL RISK  
ANYWHERE IN THE WORLD

NEW YORK  
60 E. 42nd STREET  
Murray Hill 2-7424

PARKER & CO.

PHILADELPHIA  
1616 WALNUT STREET  
Kingsley 1200

Specializing in aviation insurance for over 20 years

# AIR TRANSPORTATION EQUIPMENT

## Air Cargo Handling Equipment

Automatic Transportation Co., 101 West 87th St., Chicago, Ill.

R. J. Ederer, 540 Orleans St., Chicago, Ill.  
Electrolift, Inc., 30 Church St., New York.  
Evans Products Company, 15310 Fullerton Ave., Detroit, Mich.

A. B. Farquhar Co., 453 Duke St., York, Pa.  
The Globe Company, 4000 Princeton Avenue, Chicago, Ill.

W. F. Hebard & Co., 2431 S. State St., Chicago 16, Ill.

The Heil Co., Milwaukee, Wis.

Lyon-Raymond Corp., Greene, N. Y.

Mechanical Handling Systems, 4680 Nancy Ave., Detroit, Mich.

Nutting Truck & Caster Co. 1163 Division St., Faribault, Minn.

Robbins & Myers, Inc., Hoist & Crane Division, Springfield, Ohio.

J. L. Stuart Mfg. Co., 31 Front St., San Francisco, Cal.

Jervis B. Webb Company, Detroit, Mich.  
Whiting Corp., Harvey, Ill.

## Cargo Hold-Down Straps

Leathercraft Furniture Mfg. Co., 3045 E. 11th St., Los Angeles, Cal.

## Conveyors

Barber-Greene Co., Aurora, Ill.

## Lifts (Portable)

Federal Aircraft Works, 3456 Mississippi Drive, Minneapolis 12, Minn.

## Loading Stands—Passenger

## Mailroom Equipment

National Postal Meter Co., Inc., P. O. Box 372, Rochester 2, N. Y.

## Platforms—Service

Security Fence Co., Somerville, Mass.

## Platforms—Skid

Standard Pressed Steel Co., Jenkintown, Pa.

## Scales

Fairbanks, Morse & Co., 600 S. Michigan Ave., Chicago, Ill.

## Scales—Mail and Parcel

Toledo Scale Co., Telegraph Rd., Toledo.

## Scales—Wheel Load

Lift-Truck Division, Waukesha, Wis.

## Tractors and Trucks

Allis-Chalmers Mfg. Co., Milwaukee.

Automatic Transportation Co., 101 W. 87th St., Chicago, Ill.

J. L. Case Co., 700 State St., Racine, Wis.

Baker Industrial Truck Div. (Baker-Raulang Co.), 2185 W. 25th St., Cleveland, Ohio.

Caterpillar Tractor Co., Peoria, Ill.

Clark Tractor Division of Clark Equipment Co., Battle Creek, Michigan.

Cleveland Tractor Co., 19300 Euclid Ave., Cleveland, Ohio.

Cunningham-Hall Aircraft Corp., 13 Canal St., Rochester, N. Y.

Deere & Co., Moline, Ill.

Elwell-Parker Electric Co., 4170 St. Clair Ave., Cleveland, Ohio.

Four-Wheel Drive Co., Clintonville, Wis.  
"H H" Manufacturers, 1140 Broadway, Long Beach, Calif.

W. F. Hebard & Co., 2431 S. State St., Chicago 16, Ill.

International Harvester Co., 180 N. Michigan Ave., Chicago 1, Ill.

Jarvis & Jarvis Inc., Palmer, Mass.

Karl Ort, W. Poplar St., York, Pa.

Massey Harris Co., Racine, Wis.

Mercury Manufacturing Co., 4104 So. Halstead St., Chicago, Ill.

Oliver Farm Equipment Co., 400 W. Madison St., Chicago, Ill.

The Ready-Power Co., 3849 Grand River Ave., Detroit, Mich.

Standard Pressed Steel Co., Jenkintown, Pa.

Toro Manufacturing Corp., 3042 Snelling Ave., Minneapolis, Minn.

Towmotor Co., 1226 E. 152nd St., Cleveland, Ohio.

Yale & Towne Mfg. Co. (Philadelphia Division), 4530 Tacony St., Philadelphia, Pa.

## Trailers

American Bantam Car Co., Butler, Pa.

Butler Mfg. Co., 1233 Eastern Ave., Kansas City, Mo.

Clark Tractor Division of Clark Equipment Co., Battle Creek, Mich.

C. H. & E. Manufacturing Co., 3849 N. Palmer St., Milwaukee, Wis.

Mercury Mfg. Co., 4104 So. Halstead St., Chicago, Ill.

Schweizer Aircraft Corp., Prescott Ave., Heights Station, Elmira, N. Y.

Trailer Co. of America, Cincinnati, Ohio.

Yale & Towne Mfg. Co., Chrysler Bldg.,

New York, N. Y.

(Continued on Page 53)



(TRADE MARK)

## International Express and Mail Tables

Express rates quoted are from the U. S. international airport of departure and are based on the latest prevailing tariffs. Shippers are warned, however, that they are subject to change.

Bro—Brownsville, Tex.  
Bw—Boston, Mass.  
Cg—Chicago  
Cub—Cut Bank, Mont.  
Eo—El Paso  
Fv—Fort Worth  
Gf—Grand Forks, N. D.  
Lgs—Los Angeles  
Mia—Miami  
No—New Orleans  
Nyk—New York  
Sq—San Diego  
Ste—Seattle

International Air Express is subject to two charges: one a charge per pound weight or measurements at carrier's option (200 cu. in. to the pound of weight), the other a charge per \$100 of valuation. The two must be added on any shipment to determine the cost. Neither includes insurance, which may be purchased by the shipper from the carrier or otherwise.

**Priorities:** The air carriers warn all shippers that express traffic, both U. S. Government and commercial, is so heavy that no guarantee can be given that any shipment will

depart on any particular plane unless it enjoys U. S. priority. Otherwise it will depart, in relation to other shipments, in the order received at the international airport used, subject to wartime limitations. Shippers should forward cargo to international airports as far in advance of desired departure as possible and should communicate via Railway Express Agency, Inc. with the international air carrier as to whether the shipment can be forwarded without priority, as shipments without priority for certain countries are, at present, under embargo. (On cargoes to be shipped via American Export Airlines, Inc., shippers should inquire at their office, Room 920, 25 Broadway, New York.)

International air carriers whose schedules and rates are included here are indicated by the letter following the symbol for the airport:

A—American Airlines.  
C—Colonial Air Lines.  
E—American Export Airlines.  
EA—Express Aero Inter-American.  
S. A.  
K—<sup>KT</sup> M-Royal Dutch Air Lines.  
NE—Northeast Airlines.  
NW—Northwest Airlines, Inc.  
P—Pan American Airways System and affiliates.  
T—Trans-Canada Air Lines.  
U—United Air Lines.  
W—Western Air Lines.

Destination	U. S. Gateway & Airline	RATES		Depart	Mail per ½ Oz.	Destination	U. S. Gateway & Airline	RATES		Depart	Mail per ½ Oz.
		Per Lb.	Per \$100 Value					Per Lb.	Per \$100 Value		
<b>LATIN-AMERICA LINES</b>											
Antilla, Cuba.....	Mia P	.24	.25	Dly	.10	Arequipa, Peru.....	Mia P	1.23	.50	Dly	.30
Antofagasta, Chile.....	Mia P	1.26	.50	M,W,Th,F, Sa	.40	"	No P	1.26	.50	Su,Tu,F	.40
"	No P	1.34	.50	Su,Tu,F	.40	"	Bro P	1.28	.50	Dly	.30
"	Bro P	1.34	.50	Tu,W,Th,F,	.40	Arica, Chile.....	Lgs P	1.93	.50	Dly	.30
"	Lgs P	1.95	.50	Su	.40	"	Mis P	1.25	.50	M,W,Th,Sa	.40
Aracaju, Brazil.....	Mia P	1.26	.50	M,Tu,W,Th, F,Sa	.40	"	No P	1.26	.50	Su,Tu,F	.40
"	No P	1.71	.50	Su,Tu,F	.40	"	Bro P	1.26	.50	Tu,W,Th,F,	.40
"	Bro P	1.71	.50	M,F	.40	"	Lgs P	1.94	.50	Su	.40
"	Lgs P	2.28	.65	Su,Th	.40	Aruba, N. W. I.....	— P via M ara	1.23	.45*	M,Tu,W,Th, Sa	.40
Araxa Branca, Brazil.....	Mia P	1.24	.50	Su	.40	"	Mia K	0.75	.45*	We,Sa	.25
"	No P	1.56	.50	Su	.40	"	Mia P	1.73	.50	Su,F	.40
"	Bro P	1.56	.50	F	.40	"	No P	1.86	.50	Tu,F	.40
"	Lgs P	2.13	.50	Th	.40	"	Bro P	1.86	.50	W,F	.40
						"	Lgs P	2.43	.65	Tu,Th	.40
						Bahia, Brazil.....					
						(See Sao Salvador)					

Destination	U. S. Gateway & Airline	RATES			Depart	Mail per ½ Oz.	U. S. Gateway & Airline	RATES			Depart	Mail per ½ Oz.
		Per Lb.	Per \$100 Value					Per Lb.	Per \$100 Value			
Balboa, Canal Zone . . . . .	Mia P .76 .40	Dly	.15				Concepcion, Bolivia . . . . .	Mia P 1.31 .50	Sa			
" "	No P .90 .40	Su,Tu,F	.15				" "	Bro P 1.45 .50	F			
" "	Bro P .90 .40	Dly	.15				" "	Bro P 1.45 .50	F			
" "	Lga P 1.45 .50	Dly	.15				" "	Lga P 2.03 .50	Th			
Baracoa, Cuba . . . . .	Mia P .28 .25	Dly ex Sa	.10				Cordoba, Argentina . . . . .	Mia P 1.49 .50	Dly			
Barcelona, Venezuela . . . . .	Mia P .85 .40	Dly	.25				" "	No P 1.03 .50	Su,Tu,F			
" "	No P 1.16 .50	Su,Tu,F	.25				" "	Bro P 1.03 .50	Dly			
" "	Bro P 1.17 .50	Dly	.25				" "	Lga P 2.19 .50	Dly			
" "	Lga P 1.78 .50	Dly	.25				Coro, Venezuela . . . . .	Mia P .74 .40	Sa,Tu			
Barranquilla, Colombia via Kingston . . . . .	Mia K 0.98 .50*	Sa	.35				" "	No P 1.11 .50	Sa,Tu,F			
via Balboa . . . . .	Mia P .61 .40	Su,Tu,W,F	.35				" "	Bro P 1.11 .50	Dly			
" "	No P 1.50 .50	Dly	.35				" "	Lga P 1.69 .50	Dly			
" "	Bro P 1.03 .40	Dly	.35				Corumba, Brazil . . . . .	Mia P 1.41 .50	Su,W,F,Sa			
" "	No P 1.50 .50	Dly	.35				" "	No P 1.56 .50	Tu,F			
" "	Lga P 1.03 .40	Tu,Th,Sa	.35				" "	Bro P 1.56 .50	M,Th			
Bauru, Brazil . . . . .	Mia P 1.58 .50	Sa	.40				" "	Lga P 2.13 .50	S,W			
" "	No P 1.71 .50	F	.40				Cristobal, Canal Zone . . . . .	Mia P .76 .40	Dly			
" "	Bro P 1.71 .50	F	.40				" "	No P .92 .40	Su,Tu,F			
" "	Lga P 2.28 .65	Th	.40				" "	Bro P .92 .40	Dly			
Belem, Brazil ( <i>See Para</i> )							" "	Lga P 1.46 .50	Dly			
Bello-Horizonte, Brasil . . . . .	Mia P 1.65 .50	Su,M,W,F	.40				Cuenca, Ecuador . . . . .	Mia P 1.06 .40	Su,W,F			
" "	No P 1.03 .40	Tu,Th,Sa	.35				" "	No P 1.15 .50	Tu,F			
" "	Bro P 2.13 .50	M,W,F,Su	.40				" "	Bro P 1.15 .50	Tu,Th,Sa			
" "	Lga P 2.09 .65	Su,Tu,Th,F	.40				" "	Lga P 1.76 .50	M,W,F			
Bonaire, N. W. I. . . . .	— P via M aracibo, Ven.						Curacao, N. W. I. . . . .	— P via M aracibo, Ven.				
Buenos Aires, Argentina . . . . .	Mia K 0.70 .45*	We,Sa	.25				" "	Mia K 0.75 .45*	We,Sa			
" "	Min P 1.56 .50	Dly	.40				Curityba, Brazil . . . . .	Mia P 1.60 .50	Su,W,F			
" "	No P 2.13 .50	Su,Tu,F	.40				" "	No P 2.00 .50	Su,Tu,F			
" "	Bro P 1.70 .50	Dly	.40				" "	Bro P 2.00 .50	M,W,F			
" "	Lga P 2.26 .65	Dly	.40				" "	Lga P 2.58 .65	Su,Tu,Th			
Cali, Col. via Balbos . . . . .	Mia P .89 .40	Dly	.35				David, Panama . . . . .	Mia P .82 .40	Dly			
" "	No P 1.70 .50	Su,Tu,F	.40				" "	No P .85 .40	Su,Tu,F			
" "	Bro P 1.03 .40	Dly	.35				" "	Bro P .85 .40	Dly			
" "	Lga P 1.59 .50	Dly	.35				" "	Lga P 1.35 .60	Dly			
Camaguey, Cuba . . . . .	Mia P .26 .25	Dly	.10				Esmeraldas, Ecuador . . . . .	Mia P .99 .40	Tu			
" "	Min K 0.23 .25*	We,Sa	.10				" "	No P 1.11 .50	Su			
Camocim, Brasil . . . . .	Mia P 1.22 .50		.40				" "	Bro P 1.11 .50	M			
" "	No P 1.50 .50		.40				" "	Lga P 1.71 .50	Su			
" "	Bro P 1.50 .50		.40				Florianopolis, Brazil . . . . .	Mia P 1.63 .50	Su,M,F			
" "	Lga P 2.05 .50		.40				" "	No P 2.11 .50	Tu,F			
Campeche, Mexico . . . . .	Mia P .41 .25	Su,W,F	.10				" "	Bro P 2.11 .50	W,F,Sa			
" "	No P .41 .25	Su,Tu,F	.10				" "	Lga P 2.68 .65	Tu,Th,F			
Campo Grande, Brasil . . . . .	Bro P .51 .40	Dly	.10				Fort de France, Martinique . . . . .	Mia P .71 .40	Sa			
" "	Lga P 1.00 .40	Dly	.10				" "	No P 1.00 .40	Su			
" "	Mia P 1.48 .50	Su,F	.40				" "	Bro P 1.16 .50	Su			
" "	No P 1.61 .50	Su,Tu	.40				" "	Lga P 1.78 .50	Sa			
" "	Bro P 1.61 .50	W,F	.40				" "	Mia P 1.23 .50	Su,M,Tu,W, Th,Se			
" "	Lga P 2.18 .50	Tu,Th	.40				" "	No P 1.54 .50	Su,Tu,F			
Canavieiras, Brasil . . . . .	Mia P 1.33 .50	Sa,W	.40				" "	Bro P 1.54 .50	Su,M,Tu,Th, F,Sa			
" "	No P 1.81 .50	Su,Tu,F	.40				" "	Lga P 2.10 .50	M,W,Th,F,			
" "	Bro P 1.81 .50	M,F	.40				" "	Mia P .90 .40	Sa			
" "	Lga P 2.38 .65	Su,Th	.40				" "	No P 1.24 .50	Dly			
Caracas, Venezuela ( <i>See La Guaira</i> ) . . . . .	Mia P 1.36 .50	Sa,W	.40				" "	No P 1.24 .50	Su,Tu,F			
Caravelas, Brazil . . . . .	No P 1.83 .50	Su,F	.40				" "	Bro P 1.24 .50	Dly			
" "	Bro P 1.83 .50	M,F	.40				" "	Lga P 1.88 .50	Dly			
" "	Lga P 2.41 .65	Su,Th	.40				" "	Bro P 1.43 .25	Dly			
Cayenne, Fr. Guiana . . . . .	Mia P 1.02 .40	Dly	.30				" "	Lga P 1.59 .40	Dly			
" "	No P 1.26 .50	Su,Tu,F	.30				" "	Mia P 1.28 .25	Dly			
" "	Bro P 1.26 .50	Dly	.30				" "	No P 1.53 .40	Su,Tu,F			
" "	Lga P 1.91 .50	W	.30				" "	Bro P 1.53 .40	Dly			
Cayo Mambi, Cuba . . . . .	Mia P .26 .25	Dly ex Sa	.10				" "	Lga P 1.05 .50	Dly			
Chetumal, Mexico . . . . .	Mia P .53 .40	W,F	.10				" "	Mia P 1.04 .40	Dly			
" "	No P .55 .40	Su,Tu	.10				" "	No P 1.15 .50	Su,Tu,F			
" "	Bro P .55 .40	Su,Th	.10				" "	Bro P 1.15 .50	Dly			
" "	Lga P 1.04 .40	W,Sa	.10				" "	Lga P 1.75 .50	Dly			
Chileyao, Peru . . . . .	Mia P 1.11 .50	Dly	.30				" "	Mia P .20 .18	Dly			
" "	No P 1.19 .50	Su,Tu,F	.30				" "	Mia EA .20 .18	Dly			
" "	Bro P 1.19 .50	Dly	.30				" "	Bro P .77 .40	Dly			
" "	Lga P 1.81 .50	Dly	.30				" "	Lga P .24 .25	Dly			
Cienfuegos, Cuba . . . . .	Mia P .28 .18	Sa,Tu,F	.10				" "	Mia P 1.69 .50	Su,F			
C. del Carmen, Mexico . . . . .	Mia P .45 .25	Su,W,F	.10				" "	No P 1.91 .50	Tu,F			
" "	No P .45 .25	Su,Tu,F	.10				" "	Bro P 1.91 .50	W,F			
" "	Bro P .47 .40	Dly	.10				" "	Lga P 2.48 .65	Tu,Th			
Ciudad Trujillo, D. R. . . . .	Mia P .45 .25	Dly	.10									
" "	Mia K 1.11 .50*	Sa	.10									
Cochabamba, Bolivia . . . . .	Mia P 1.26 .50	W,Sa	.35									
" "	No P 1.35 .50	Tu,F	.35									
" "	Bro P 1.35 .50	Tu,F	.35									
" "	Lga P 1.95 .50	M,Th	.35									

Destination	U. S. Gateway & Airline	RATES		Depart	Mail per ½ Oz.	Destination	U. S. Gateway & Airline	RATES		Depart	Mail per ½ Oz.
		Per Lb.	Per \$100 Value					Per Lb.	Per \$100 Value		
Ixtapa, Mexico	Mia P	.76	.40	Su,W,F	10	Mexico City, Mexico	Fv A	.42	.25	Dly	10
"	No P	.76	.40	Su,Tu,F	10	"	Eo A	.42	.25	Dly	10
"	Bro P	.41	.25	Su,M,Tu,W,	10	"	So A	.74	.35	Dly	10
"	Lgs P	.89	.40	Th,F	10	Minatitlan, Mexico	Mis P	.53	.40	Su,W,F	10
"	"	"	"	Su,M,Tu,W,	10	"	No P	.53	.40	Su,Tu,F	10
Joao Pessoa, Brazil	Mia P	1.25	.50	W	40	"	Bro P	.39	.25	Dly	10
(Cabetello)	No P	1.64	.50	Su	40	Monterrey, Mexico	Fv A	.34	.25	Dly	10
"	Bro P	1.64	.50	M	40	"	Eo A	.34	.25	Dly	10
"	Lgs P	2.20	.50	Su	40	"	Lgs A	.63	.35	Dly	10
Kingston, Jamaica	Mis P	.39	.25	Su,Tu,W,F	10	"	Sq. A	.74	.35	Dly	10
"	Mia K	.34	.25	We	10	Montevideo, Uruguay	Mia P	.20	.18	Dly ex Su,W	10
La Guaira, Venezuela	Mia P	.81	.40	M,W,F,Sa	25	Nassau, Bahamas	Mia P	1.25	.50	M,Tu,Th,Sa	40
"	Mia K	.75	.45*	W,Se	25	Natal, Brasil	No P	1.61	.50	Su,Tu,F	40
"	No P	1.15	.50	Su,Tu,F	25	"	Bro P	1.61	.50	Su,M,Tu,Th, F,Sa	40
"	Bro P	1.15	.50	Dly	25	La Paz, Bolivia	Lgs P	2.18	.50	Su,M,W,Th, F,Se	40
"	Lgs P	1.75	.50	Dly	25	Oaxaca, Mexico	Mia P	.73	.40	Su,W,F	10
Loja, Ecuador	Mia P	1.25	.50	Su,Tu,W,Sa	35	"	No P	.73	.40	Su,Tu	40
"	No P	1.30	.50	Su,Tu,F	35	"	Bro P	.35	.25	Su,Tu,Th	10
"	Bro P	1.30	.50	M,Tu,F,Sa	35	Oruro, Bolivia	Lgs P	.81	.40	Su,Tu,Th	10
"	Lgs P	1.95	.50	Su,M,Th,F	35	Panama City, Panama	Mia P	1.26	.50	Su,Tu,W,Sa	35
Lima, Peru	Mia P	1.18	.50	Dly	30	(See <i>B</i> alba, C. Z.)	No P	1.33	.50	Su,Tu,F	35
"	No P	1.24	.50	Su,Tu,F	30	"	Bro P	1.33	.50	M,Tu,F,Sa	35
"	Bro P	1.24	.50	Dly	30	"	Lgs P	1.95	.50	Su,M,Th,F	35
"	Lgs P	1.88	.50	Dly	30	Paramaribo, Sur.	Mia P	1.13	.50	Dly	40
"	Mia P	1.08	.50	Su,W,F	30	"	No P	1.34	.50	Su,Tu,F	40
"	No P	1.17	.50	Tu,F	30	"	Bro P	1.34	.50	Dly	40
"	Bro P	1.17	.50	Tu,Th,Sa	30	"	Lgs P	1.95	.50	Dly	40
"	Lgs P	1.78	.50	M,W,F	30	Point a Pitre, Guadeloupe	Mia P	.67	.40	Dly	30
Maceio, Brazil	Mia P	1.26	.50	Su,M,Tu,W,	40	"	No P	1.25	.50	Su,Tu,F	30
"	No P	1.68	.50	Su,Tu,F	40	"	Bro P	1.25	.50	Dly	30
"	Bro P	1.68	.50	Su,M,Tu,Th, F,Sa	40	"	Lgs P	1.90	.50	Dly	30
"	Lgs P	2.24	.50	M,W,Th,F, Sa	40	Parnahyba, Brasil	Mia P	1.21	.50	Su,W	40
Managua, Nicaragua	Mia P	.86	.40	Dly	12	"	No P	1.48	.50	Su,F	40
"	No P	.71	.40	Su,Tu,F	12	"	Bro P	1.48	.50	M,F	40
"	Bro P	.71	.40	Dly	12	"	Lgs P	2.04	.50	Su,Th	40
"	Lgs P	1.22	.50	Dly	12	Port au Prince, Haiti	Mia P	.66	.40	Sa	15
Mamao, Brasil	Mia P	1.24	.50	Su,W	40	"	No P	.98	.40	Su	15
"	No P	1.56	.50	Tu,F	40	"	Bro P	1.14	.50	Su	15
"	Bro P	1.56	.50	M,F	40	"	Lgs P	1.74	.50	Sa	15
"	Lgs P	2.13	.50	Su,Th	40	Port of Spain, Trinidad	Mia P	0.39	.35*	Sa	10
Manta, Ecuador	Mia P	1.03	.40	Th,Sa	30	"	No P	.79	.40	Dly	15
"	No P	1.14	.50	Tu,F	30	"	Bro P	1.10	.50	We,Sa	15
"	Bro P	1.14	.50	W,F	30	"	Mia P	1.20	.50	Su,Tu,F	15
"	Lgs P	1.74	.50	Tu,Th	30	"	Bro P	1.20	.50	Dly	15
Manzanillo, Cuba	Mia P	.26	.25	Dly ex Su	10	"	Lgs P	1.81	.50	Dly	15
Maracaibo, Venezuela	Mia P	.69	.40	Su,Tu	25	Porto Alegre, Brazil	Mia P	1.70	.50	Su,M,W,F	40
"	Mia K	0.87	.45*	We,Sa	25	"	No P	2.19	.50	Su,Tu,F	40
"	No P	1.08	.50	Su,Tu,F	25	"	Bro P	2.19	.50	M,W,F,Sa	40
"	Bro P	1.08	.50	Dly	25	"	Lgs P	2.75	.65	Su,Tu,Th,F	40
"	Lgs P	1.66	.50	Dly	25	Puerto Suarez, Bolivia	Mia P	1.41	.50	W,Sa	35
Maturin, Venezuela	Mia P	.89	.40	Dly	25	"	No P	1.56	.50	Tu,F	35
"	No P	1.19	.50	Su,Tu,F	25	"	Bro P	1.56	.50	Tu,F	35
"	Bro P	1.19	.50	Dly	25	"	Lgs P	2.13	.50	M,Th	35
Maratlan, Mexico	Mia P	.80	.50	Dly	10	Preston, Cuba	Mia P	.24	.25	Dly ex Sa	10
"	Bro P	.57	.40	Dly	10	Quito, Ecuador	Mia P	.97	.40	Dly	30
"	Lgs P	.45	.25	Dly	10	"	No P	1.09	.50	Su,Tu,F	30
Medellin, Colombia (via Barranquilla)	Mia P	1.06	.40	Su,Tu,W,F	35	"	Bro P	1.09	.50	Dly	30
Medellin, Colombia (via Balboa)	Mia P	1.06	.40	Sa	35	"	Lgs P	1.68	.50	Dly	30
"	No P	1.10	.50	Tu,Th,Sa	35	Recife (Pernambuco), Brazil	Mia P	1.26	.50	Su,M,Tu,W, Th,Sa	40
"	Bro P	1.10	.50	M,Th,F	35	"	"	"	"	"	
"	Lgs P	1.65	.50	Su,W,Th	35	"	No P	1.65	.50	Su,Tu,F	40
Mendoza, Argentina	Mia P	1.41	.50	M,W,Th,Sa	40	"	Bro P	1.65	.50	Su,M,Tu,W,	40
"	No P	1.55	.50	Su,Tu,F	40	"	"	"	"	"	
"	Bro P	1.55	.50	Su,Tu,W,F	40	"	Lgs P	2.21	.50	Su,M,Tu,W, Th,F,Sa	40
Merida, Mexico	Mia P	2.11	.50	M,Tu,Th,Sa	40	"	"	"	"	"	
"	Mia P	.37	.25	Su,W,F	10	"	"	"	"	"	
"	No P	.37	.25	Su,Tu,F	10	"	"	"	"	"	
"	Bro P	.55	.40	Dly	10	"	"	"	"	"	
"	Lgs P	1.04	.40	Dly	10	"	"	"	"	"	
Mexico City, Mexico	Lgs P	.20	.18	Dly	10	"	"	"	"	"	
"	Mia P	.64	.40	Su,W,F	10	"	"	"	"	"	
"	No P	.64	.40	Su,Tu,F	10	"	"	"	"	"	
"	Bro P	.26	.25	Dly	10	"	"	"	"	"	
"	Lgs P	.69	.40	Dly	10	"	"	"	"	"	
"	Lgs A	.70	.35	Dly	10	"	"	"	"	"	

\* These rates are only due if consignments are shipped with declared value.

† Shipments for Montevideo must be assessed rates to Buenos Aires plus 55¢ per 2 lbs. or fraction thereof (min. 55¢) for forwarding by other carrier to Montevideo, plus \$1.10 per shipment transfer charge at Buenos Aires.

Destination	U. S. Gateway & Airline	RATES		Depart	Mail per 1/2 Oz.
		Per Lb.	Per \$100 Value		
Rio de Janeiro . . . . .	Mia P	.50	.50	Su,M,W,F	.40
"	No P	1.98	.50	Su,Tu,F	.40
"	Bro P	1.98	.50	M,W,F,Sa	.40
"	Lgs P	2.54	.65	Su,Tu,Th,F	.40
Robore, Bolivia . . . . .	Mia P	1.38	.50	Sa	.35
"	No P	1.51	.50	F	.35
"	Bro P	1.51	.50	F	.35
"	Lgs P	2.08	.50	Th	.35
Salinas, Ecuador . . . . .	Mia P	1.05	.40	Th,Sa	.30
"	No P	1.15	.50	Tu,F	.30
"	Bro P	1.15	.50	W,F	.30
"	Lgs P	1.75	.50	Tu,Th	.30
Salta, Argentina . . . . .	Mia P	1.30	.50	Su,Tu,F	.40
"	No P	1.45	.50	Su,Tu,F	.40
"	Bro P	1.45	.50	M,Th,Sa	.40
"	Lgs P	2.03	.50	Su,W,F	.40
San Ignacio, Bolivia . . .	Mia P	1.33	.50	Sa	.35
"	No P	1.48	.50	F	.35
"	Bro P	1.48	.50	F	.35
"	Lgs P	2.04	.50	Th	.35
San Jose, Bolivia . . . . .	Mia P	1.35	.50	Sa	.35
"	No P	1.50	.50	F	.35
"	Bro P	1.50	.50	F	.35
"	Lgs P	2.08	.50	Th	.35
San Jose, Costa Rica . . .	Mia P	.89	.40	Dly	.15
"	No P	.76	.40	Su,Tu,F	.15
"	Bro P	.76	.40	Dly	.15
"	Lgs P	1.31	.50	Dly	.15
San Juan, Puerto Rico . . .	Mia P	.53	.40	Dly	.10
San Salvador, El Salvador . . . . .	Mia P	.79	.40	Dly	.12
"	No P	.61	.40	Su,Tu,F	.12
"	Bro P	.61	.40	Dly	.12
"	Lgs P	1.14	.50	Dly	.12
Santa Cruz, Bolivia . . . .	Mia P	1.28	.50	W,Sa	.35
"	No P	1.43	.50	Tu,F	.35
"	Bro P	1.43	.50	Tu,F	.35
"	Lgs P	1.99	.50	M,Th	.35
Santiago, Chile . . . . .	Mia P	1.38	.50	M,W,Th,Sa	.40
"	No P	1.51	.50	Su,Tu,F	.40
"	Bro P	1.51	.50	Su,Tu,W,F	.40
"	Lgs P	2.08	.50	M,Tu,Th,Sa	.40
Santiago, Cuba . . . . .	Mia P	.26	.25	Dly	.10
Sao Luis, Brazil . . . . .	Mia P	1.19	.50	Su,M,Tu,W, Th,Sa	.40
"	No P	1.43	.50	Su,Tu,F	.40
"	Bro P	1.43	.50	Su,M,Tu,Th, F,Sa	.40
"	Lgs P	1.90	.50	Su,M,W,Th, F,Sa	.40
Sao Paulo, Brasil . . . . .	Mia P	1.55	.50	Su,M,W,F	.40
"	No P	2.04	.50	Su,Tu,F	.40
"	Bro P	2.04	.50	M,W,F,Sa	.40
"	Lgs P	2.60	.65	Su,Tu,Th,F	.40
Sao Salvador, Brasil (Bahia) . . . . .	Mia P	1.28	.50	Su,M,Tu,W, Th,Sa	.40
"	No P	1.76	.50	Su,Tu,F	.40
"	Bro P	1.76	.50	Su,M,Tu,Th, F,Sa	.40
"	Lgs P	2.33	.65	Su,M,W,Th, F,Sa	.40
St. Johns, Antigua, British West Indies . . . .	Mia P	.64	.40	Su,M,W,F,Sa	.15
"	No P	.66	.40	Su,Tu,F	.15
"	Bro P	1.13	.50	Su,M,W,F,Sa	.15
"	Lgs P	1.73	.50	Su,Tu,Th,Sa	.15
St. Thomas, V. I. . . . .	Mia P	.57	.40	Su	.10
"	No P	.90	.40	Su	.10
"	Bro P	1.10	.50	Su	.10
"	Lgs P	1.68	.50	Sa	.10
Talara, Peru . . . . .	Mia P	1.08	.50	Dly	.30
"	No P	1.17	.50	Su,Tu,F	.30
"	Bro P	1.17	.50	Dly	.30
"	Lgs P	1.79	.50	Dly	.30
Tampico, Mexico . . . . .	Bro P	.20	.18	Dly	.10
"	Lgs P	.81	.40	Dly	.10
Tapachula, Mexico . . . .	Mia P	.74	.40	Su,W,F	.10
"	No P	.74	.40	Su,Tu,F	.10
"	Bro P	.53	.40	Dly	.10
"	Lgs P	1.02	.40	Dly	.10

Destination	U. S. Gateway & Airline	RATES		Depart	Mail per 1/2 Oz.
		Per Lb.	Per \$100 Value		
Tegucigalpa, Honduras . .	Mia P	.82	.40	Dly	.12
"	No P	.68	.40	Su,Tu,F	.12
"	Bro P	.68	.40	Dly	.12
"	Lgs P	1.18	.50	Dly	.12
Tres Lagoas, Brasil . . .	Mia P	1.53	.50	Su	.40
"	No P	1.60	.50	F	.40
"	Bro P	1.60	.50	F	.40
"	Lgs P	2.23	.50	Th	.40
Tucuman, Argentina . . .	Mia P	1.34	.50	Su,Tu,F	.40
"	No P	1.49	.50	Su,Tu,F	.40
"	Bro P	1.49	.50	M,Th,Sa	.40
"	Lgs P	2.05	.50	Su,W,F	.40
Turbo, Columbia . . . . .	Mia P	1.06	.40	Su,Tu,W,F	.35
(via Barranquilla)					
Turbo, Colombia . . . . .	Mia P	1.06	.40	Sa	.35
(via Balboa, C. Z.) . .	No P	1.10	.50	Tu,Th,Sa	.35
"	Bro P	1.10	.50	M,Th,F	.35
"	Lgs P	1.65	.50	Su,W,Th	.35
Tuxpan, Mexico . . . . .	Bro P	.20	.18	Dly	.10
"	Lgs P	.83	.40	Dly	.10
Tuxtla Gutierrez, Mexico .	Mia P	.81	.40	Su,W,F	.10
"	No P	.81	.40	Su,Tu	.10
"	Bro P	.45	.25	Su,U,Th	.10
"	Lgs P	.93	.40	Su,Tu,Th	.10
Uyuni, Bolivia . . . . .	Mia P	1.26	.50	Su,Tu	.35
"	No P	1.38	.50	Su,F	.35
"	Bro P	1.38	.50	M,Sa	.35
"	Lgs P	1.95	.50	Su,F	.35
Veracruz, Mexico . . . . .	Mia P	.57	.40	Su,W,F	.10
"	No P	.57	.40	Su,Tu,F	.10
"	Bro P	.33	.25	Dly	.10
"	Lgs P	.79	.40	Dly	.10
Victoria, Brazil . . . . .	Mia P	1.41	.50	Su,W	.40
"	No P	1.90	.50	Su,Tu,F	.40
"	Bro P	1.90	.50	M,F	.40
"	Lgs P	2.46	.65	Su,Th	.40
Villahermosa, Mexico . .	Mia P	.49	.40	Su,W,F	.10
"	No P	.49	.40	Su,Tu,F	.10
"	Bro P	.43	.25	Dly	.10
"	Lgs P	.90	.40	Dly	.10

### ATLANTIC LINES

Botwood, Newfoundland	Nyk P	.81	.40	Twice wk	.15
England via Foynes . . .	Nyk E	(Rates on Application)			.30
	Nyk P	(Rates on Application)			.30
Foynes, Eire via Botwood . .	Nyk P	1.78	.50	Twice wk	.30
" " via Lisbon	Nyk P	2.00	.50	Fortnightly	.30
"	Nyk E	1.78	.50		.30
Hamilton, Bermuda . . . .	Nyk F	.55	.25	Twice wk	.10
Horta, Azores . . . . .	Nyk P	1.70	.40	Weekly	.30
Lisbon, Portugal . . . . .	Nyk P	2.00	.50	Weekly	.30
Scotland via Foynes . . .	Nyk E	(Rates on Application)			.30
"	Nyk P	(Rates on Application)			.30
Shediac, N. B. . . . .	Nyk P	.51	.25	Twice wk	.05
Wales via Foynes . . . . .	Nyk E	(Rates on Application)			.30
"	Nyk F	(Rates on Application)			.30

### ALASKA LINES

Aniak, Alaska . . . . .	Ste P	1.08	.40	"	.05
Bethel, Alaska . . . . .	Ste P	1.11	.40	Schedules not published	.05
Burwash Landing . . . . .	Ste P	.72	.40	"	.05
Fairbanks . . . . .	Ste P	.90	.40	"	.05
Flat . . . . .	Ste P	1.05	.40	"	.05
Galena . . . . .	Ste P	1.00	.40	"	.05
Juneau . . . . .	Ste P	.56	.25	Schedules not published	.05
Lake Minchumina . . . . .	Ste P	.95	.40	"	.05
McGrath . . . . .	Ste P	1.00	.40	"	.05
Moses Point . . . . .	Ste P	1.07	.40	"	.05
Nome . . . . .	Ste P	1.11	.40	"	.05
Tanacross . . . . .	Ste P	.81	.40	"	.05
Tanana . . . . .	Ste P	.95	.40	"	.05
Whitehorse, Canada . . .	Ste P	.66	.40	"	.05



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New Orleans Office: Canal Bldg. Miami, Fla., Office: 410 N.E. 2nd Ave.  
Telephone: Raymond 8408

Telephone: Miami 3-4796

Cable Address "Airseax"

Destination	U. S. Gateway & Airline	RATES		Depart	Mail per $\frac{1}{2}$ Oz.
		Per Lb.	Per \$100 Value		
<b>CANADIAN LINES</b>					
Calgary, Alb.	Nyk T	.02	↑ Dly		.06
Edmonton, Alb.	Nyk T	.06	↑ Dly		.06
Halifax, N. S.	Nyk T	.31	↑ Dly		.06
Lethbridge, Alb.	Nyk T	.44	↑ Dly		.06
"	CubW	.04	↑ Dly		.06
London, Ont.	Nyk T	.22	↑ Dly		.06
Montreal, Que.	Nyk C	.12	↑ Dly		.06
North Bay, Ont.	Nyk T	.27	↑ Dly		.06
Ottawa, Ont.	Nyk T	.18	↑ Dly		.06
Regina, Sask.	Nyk T	.76	↑ Dly		.06
St. John, N. B.	Nyk T	.31	↑ Dly		.06
St. Johns, N. F.	Nyk T	.55	↑ Dly		.06
Sydney, N. S.	Nyk T	.36	↑ Dly		.06
Toronto, Ont.	Nyk A	.16	↑ Dly		.06
"	Nyk T	.16	↑ Dly		.06
Vancouver, B. C.	Ste U	.08	↑ Dly		.06
"	Nyk T	.56	↑ Dly		.06
Windsor, Ont.	Nyk A	.20	↑ Dly		.06
"	Cg A	.12	↑ Dly		.06
"	Nyk T	.20	↑ Dly		.06
Winnipeg, Man.	GINW	.04	↑ Dly		.06
"	Nyk T	.60	↑ Dly		.06

\* British Overseas Airways Corp. carries from Foynes, Ireland to destinations in England, Scotland, and Wales.

† Canadian air express is carried on the same basis as air express within the U. S.: \$50 declared value free; excess charged at 10 cents per \$100 or fraction thereof.

Note: The per pound rate shown in this column is based on the average package weighing 25 lbs., i.e.: A 1 lb. package from New York to Ontario would cost \$1 - 25 lbs. \$4. Average cost per pound: 16 cents.

## AIR TRANSPORTATION EQUIPMENT

(Continued from Page 48)

### Trucks—Baggage

Aeronautical Trading Company, Floyd Bennett Airport, Brooklyn, New York.

Automatic Transportation Co., 101 W. 87th St., Chicago, Ill.

Chas. W. Carl's Sons, Trenton, N. J.

Colson Corp., Elyria, Ohio.

Lewis-Shepard Sales Corp., Watertown, Mass.

### Trucks, Electric (Platform Type)

Automatic Transportation Co., 101 W. 87th St., Chicago, Ill.

Rocky Mountain Steel Products Inc., 1346 Wall St., Los Angeles, Calif.

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JOHN F. BUDD  
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**Moulding Editorial  
Opinion**

Newspaper editorial writers, though many of today's generation would be first to deny that it ever was literally true, have long been looked upon by many as moulders of public opinion. So, in fact, they have often been.

But when an advertising copywriter starts moulding an editorial writer's opinion, that's something else.

In a forward-looking editorial on Aug. 23, under the heading *Rediscovering the Earth*, the New York *Times*, after consigning the old Mercator-projection maps to the discard and calling for a new way of picturing the air world of today, declares:

*Now we must think in terms of a globe — think of the fact that no two great cities are separated by more than fifty hours by air and that the shortest distance between them lies not on a straight line but on the arc of a great circle.*

Of course, it could be just a coinci-

dence. But way back on June 29, the *Times* carried that striking Consolidated Vultee Aircraft ad headed, *Try to find a spot that's more than 60 hours from your local airport.* Maybe the editorial writer didn't read the ad at all. But we've an idea that he did. And that it probably helped a lot to crystallize his thinking about the air world into so vivid a pattern—just as such advertising is helping every citizen to appreciate just what the postwar future of air transportation will mean.

**2,000 Transport Planes**

It was just a five- or six-line item. But it spoke volumes. It may even have been the biggest air cargo story of the month.

All it said was that Douglas Aircraft had, with some pride, announced the completion of its 2,000th transport airplane since Pearl Harbor.

The quantity can better be understood when you remember that U. S. airlines during August were carrying every domestic passenger, every domestic piece of air mail, every ounce of domestic air cargo—and the total is big, too—in less than three hundred planes. And it was just a few months ago when Col. Edgar S. Gorrell, president of the Air Transport Assn., was saying that even a dozen or so planes would literally save the U. S. air transport system from a real crisis.

Now comes news that the Army will soon return to the airlines all of the 165 transport planes it borrowed from them in June, 1942. The airlines should—and will—be most happy about that.

But the point we're making is that Douglas, who built most of the planes the U. S. airlines use, has built 2,000 of them since Pearl Harbor. Not bombers, not fighters, but transports. Many of them far bigger than any that flies in and out of our domestic airports.

What Douglas has been doing has been done also by Consolidated Vultee, by Boeing, by Martin, by others as well.

That's a rough measure of how many transport planes we'll have after Victory. And of how big this business of air cargo is certain to become.

# SERVICES FOR THE AIR SHIPPER

## Air Cargo Insurance Brokers

Parker & Co. (see *adv't*), 60 E. 42nd St., New York, N. Y.; 1616 Walnut St., Philadelphia, Penna.  
Riker & Lynch Inc. (see *adv't*), 90 John St., New York, N. Y.; Dominion Square Bldg., Montreal, Canada.

## Air Cargo Insurance Underwriters

Marine Office of America (see *adv't*), 116 John St., New York, N. Y.  
Wm. H. McGee & Co., Inc. (see *adv't*), 111 John St., New York, N. Y.

## Air Express

Railway Express Agency, Air Express Division (see *adv't*), 230 Park Ave., New York, N. Y.  
Acme Overseas Express, division of Acme Fast Freight, Inc. (see *adv't*), 88 Lexington Avenue, New York 16, N. Y.

## Airlines—International

American Airlines (see *adv't*), 100 East 42nd St., New York, N. Y.  
American Export Airlines, 25 Broadway, New York, N. Y.  
Expreso Aero Inter-American S. A. (see *adv't*), 33 N.W., First Ave., Miami, Fla.  
British West Indian Airways (BWIA), 630 5th Ave., New York, N. Y.  
Compania Nacional Cubana de Aviacion S. A. Prado 252, altos, Havana, Cuba.  
KLM Royal Dutch Air Lines (see *adv't*), 521 Fifth Ave., New York, N. Y.  
Pan American Airways System (see *adv't*), Chrysler Bldg., New York, N. Y.  
Pan American-Grace Airways (see *adv't*), 135 E. 42nd St., New York, N. Y.  
Trans-Canada Air Lines, 673 Fifth Ave., New York, N. Y.  
Transportes Aereos Centro - Americanos (TACA), 630 5th Ave., New York.

## Airlines—Domestic

All American Aviation Inc., 200 W. 9th St., Wilmington, Del.  
American Airlines (see *adv't*), 100 E. 42nd St., New York, N. Y.  
Braniff Airways Inc., Love Field, Dallas, Tex.  
Chicago & Southern Airlines, Municipal Airport, Memphis, Tenn.

Colonial Airlines Inc., 630 Fifth Avenue, New York, N. Y.

Continental Air Lines, Municipal Airport, Denver, Colo.

Delta Air Corp., Municipal Airport, Atlanta, Ga.

Eastern Air Lines Inc., 10 Rockefeller Plaza, New York, N. Y.

Inland Air Lines, Inc., Casper, Wyo.

Mid-Continent Airlines Inc., Municipal Airport, Kansas City, Mo.

National Airlines Inc., Municipal Airport, Jacksonville, Fla.

Northeast Airlines Inc., Commonwealth Airport, East Boston, Mass.

Northwest Airlines Inc., 1885 University Ave., St. Paul, Minn.

Pennsylvania-Central Airlines Corp., National Airport, Washington, D. C.

Transcontinental & Western Air Inc., 101 W. 11th St., Kansas City, Mo.

United Air Lines Transport Corp., 5959 S. Cicero Ave., Chicago.

Western Airlines Inc., Lockheed Air Terminal, Burbank, Calif.

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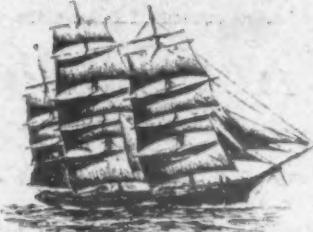
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